

Appendix M Mid County Parkway Preferred
Alternative/Preliminary LEDPA
Identification (NEPA/
404 Checkpoint 3)

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Mid County Parkway

Preferred Alternative/Preliminary LEDPA Identification (NEPA/404 Checkpoint 3)

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PURPOSE

One of the milestones in the 2006 National Environmental Policy Act/Clean Water Act (CWA) Section 404 (NEPA/404) integration process Memorandum of Understanding (MOU) for the Mid County Parkway (MCP) project is to identify a preliminary Least Environmentally Damaging Practicable Alternative (LEDPA). Identification of a preliminary LEDPA is Checkpoint 3 of the NEPA/404 process. The purpose of this paper and the attached evaluation matrices is to present key information from the Recirculated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement (RDEIR/SDEIS), technical studies, and comments received during public review of the RDEIR/SDEIS to support identification of a Preferred Alternative/Preliminary LEDPA (hereinafter referred to as the Preliminary LEDPA) in the Final EIR/EIS for the MCP project.

BACKGROUND

Alternatives Development

Beginning with the initiation of the project studies for the MCP project in 2004, the MCP Alternatives have been developed and refined through a multiple agency coordination process, working as a collaborative group previously referred to as the Small Working Group (SWG) and now referred to as the Resource Agency Coordination (RAC) group. The RAC group includes representatives from the Riverside County Transportation Commission (RCTC), Federal Highway Administration (FHWA), California Department of Transportation (Caltrans) District 8, United States Fish and Wildlife Service (USFWS), United States Environmental Protection Agency (EPA), United States Army Corps of Engineers (USACE), and the California Department of Fish and Wildlife (CDFW, formerly called the California Department of Fish and Game). Even though they are not a signatory agency to the 2006 NEPA/404 MOU, CDFW participates as part of the RAC group pursuant to a 2003 agency partnership agreement for the MCP project. The alternatives development process as undertaken by these agencies originally resulted in eight alternatives that were intended to provide a reasonable range of alternatives to satisfy the Purpose and Need for the

project. A description of the alternatives development process for the original MCP project is provided in Chapter 2 of the original Draft EIR/EIS for the MCP project (2008). The original MCP project was a 32-mile west-east highway corridor between Interstate 15 (I-15) and State Route 79 (SR-79) in western Riverside County.¹

Based on their consideration of public comments received on the 2008 Draft EIR/EIS, the RCTC's Board took action in July 2009 to modify the scope of the MCP project to focus on a 16-mile highway corridor between Interstate 215 (I-215) and SR-79. Following this action, RCTC and the MCP project team worked closely with the RAC group to develop a modified range of alternatives that was evaluated in the RDEIR/SDEIS (circulated for public review in 2013). The range of alternatives is intended to meet the requirements for alternatives analysis under the California Environmental Quality Act (CEQA), NEPA, Section 404 of the federal CWA, and Section 4(f) of the Department of Transportation Act (now codified at 49 United States Code [USC] 303).²

The following summarizes the main changes from the set of alternatives evaluated in the original 2008 Draft EIR/EIS to the modified set of alternatives evaluated in the 2013 RDEIR/SDEIS:

- The westerly project limits of the Build Alternatives were changed from I-15 to I-215, a reduction in length of approximately 16 miles.
- The horizontal alignment for Alternative 9 Modified between Perris Boulevard in the west and the Perris Valley Storm Drain in the east through the City of Perris was shifted approximately 1,000 feet north to avoid Paragon Park.
- Alternative 9 Modified includes a local interchange at Redlands Avenue to replace the local interchange previously proposed at Perris Boulevard.
- Improvements to I-215 include the following: (1) the addition of one auxiliary lane between the MCP/I-215 systems interchange and the adjacent service interchanges to the north and south to facilitate movement from the MCP and the I-215; (2) the addition of an operational/mixed-flow lane from the MCP to the Van Buren Boulevard interchange to accommodate additional traffic on the I-215 as a result of the MCP; (3) the addition of an operational/mixed-flow lane from Nuevo Road to Cajalco-Ramona Expressway to facilitate weaving on I-215 (previous Build Alternatives included collector-distributor roads and realignment of I-215 to accommodate weaving movements in this section of I-215); (4) modification of the design of a proposed new interchange at Placentia Avenue; and (5) modification of the existing interchange at Cajalco Road/Ramona Expressway.

NEPA/404 Process

The original 32-mile MCP project was conducted under the 1994 NEPA/404 Integration Process MOU. Key milestone actions under that process included execution of an interagency partnering agreement (October 2003), concurrence on Purpose and Need

(January 2004), preliminary agreement on an initial range of alternatives (November 2004), consensus on evaluation criteria for selection of a preferred alternative (December 2004), preliminary agreement on a revised range of alternatives (November 2005), and final agreement on the range of alternatives to be evaluated in the Draft EIR/EIS (December 2007).

In April 2010, the transportation agencies, USACE, EPA, and USFWS agreed to conduct the MCP project under the 2006 NEPA/CWA Section 404 MOU, including application of the NEPA/404 Checkpoint process, which requires agreement/disagreement or concurrence/nonoccurrence on Purpose and Need, Alternatives, and the Preliminary LEDPA. Key milestone actions under that process to date include agreement by USACE and EPA (and no comment from USFWS) in July 2010 on Checkpoint 1 (Purpose and Need) and agreement by USACE, EPA, and USFWS in January 2011 on Checkpoint 2 (the modified range of alternatives), as well as the use of the original (December 2004) evaluation criteria for selection of a preferred alternative.

PROJECT ALTERNATIVES

Project alternatives evaluated in the RDEIR/SDEIS included three MCP Build Alternatives (Alternatives 4 Modified, 5 Modified, and 9 Modified) and two Design Variations (San Jacinto River Bridge [SJRB DV] and San Jacinto North [SJN DV]). Figures 2.3-1a through 2.3-1c from the RDEIR/SDEIS are attached to show the location of each alignment alternative, as well as the location of the SJN DV alignment.³ Two additional exhibits are attached that show the “Base Case” design at the San Jacinto River Bridge as well as the SJRB DV.⁴ As shown in these exhibits, the existing Ramona Expressway Bridge over the San Jacinto River is retained in its current location (just upstream of the proposed MCP bridge over the river) without modification. Both the USFWS and the CDFW representatives on the RAC group have requested that RCTC include removal of the existing Ramona Expressway Bridge over the San Jacinto River as part of the MCP project, citing the environmental benefits to hydrology and biological resources within the San Jacinto River floodplain. RCTC has considered these requests, but does not propose to remove or otherwise modify the existing Ramona Expressway Bridge over the San Jacinto River as part of the MCP project because: (1) it is important to maintain the existing Ramona Expressway Bridge for local access; (2) RCTC does not have jurisdiction over the existing Ramona Expressway Bridge (it is under the jurisdiction of the County of Riverside [County] and, therefore, it is the County’s decision and responsibility to evaluate the environmental impacts of removing the bridge); (3) while there may be potential environmental benefits to the natural environment as a result of removing the existing Ramona Expressway Bridge, there are also potential environmental impacts to the human environment in terms of potential impacts to existing and future land uses that could be affected by modifications to flows within the San Jacinto River that were not a part of RCTC’s environmental analysis and would have to be studied by the County; and (4) the change in the floodplain with removal of the Ramona Expressway Bridge would require its own study and environmental document to disclose impacts to the public. The proposed MCP does not require any changes to the existing Ramona Expressway Bridge.

In addition to the Build Alternatives, there are two No Project/No Action Alternatives (Alternatives 1A and 1B) and one Section 404 No Federal Action Alternative.⁵ The Section 404 No Action Alternative is essentially construction of the project along the preliminary LEDPA alignment, with the addition of bridges and other structures to avoid virtually all fill in federally designated wetlands and other waters of the United States (U.S.). Because the Section 404 No Action Alternative would only be applied to the alternative alignment identified as the Preliminary LEDPA, it is discussed as a Design Variation in the analysis below.

Alternatives that were considered but eliminated from further analysis were discussed in the RDEIR/SDEIS in Section 2.6, Alternatives Considered and Withdrawn from Further Study.⁶

ANALYSIS OF THE ALIGNMENT ALTERNATIVES

Because there are several alignment alternatives, with potential Design Variations for each, this analysis was conducted into two parts: (1) selection of a preliminary LEDPA alignment; and (2) selection of Design Variations for the preliminary LEDPA alignment. The MCP alternatives have been evaluated using the agreed upon criteria for use in selecting the LEDPA. These criteria included three broad categories with specific criteria under each. These broad categories are Purpose and Need, Reasonable and Practicable, and Environmental Impacts. Using findings from the MCP technical studies, including Appendix M in the RDEIR/SDEIS (Draft Section 404(b)(1) Alternatives Analysis), the attached Tables A and B were prepared to present information to allow for comparison of the alternatives based on the December 2004 selection criteria.

Discussion

Table A, Detail Matrix of the Evaluation of the Mid County Parkway Build Alternatives, addresses all of the selection criteria for each alternative. This matrix describes the “value” or “metric” for each criterion (some are quantitative while others are “yes/no”). The No Project Alternatives are not included in these matrices because they do not meet the project Purpose and Need.

The information presented in the matrix in Table A is described below:

I. Purpose and Need

- 1. Provide capacity for 2040.** Based on the project traffic studies, all Build Alternatives provide capacity sufficient to meet the 2040 traffic demand in the MCP study area. Average daily traffic (ADT) in 2040 on the MCP freeway just east of I-215 is projected to be 69,600 ADT for Alternative 4 Modified, 77,200 ADT for Alternative 5 Modified, and 76,200 ADT for Alternative 9 Modified.⁷

2. **Serve regional movement of people and goods.** All Build Alternatives have been evaluated and will carry long-haul through trips through the MCP study area in addition to serving major employment generators.⁸
3. **Provide roadway geometrics to meet state highway design standards.** All Build Alternatives have been designed to meet or exceed state highway design standards and provide a higher level of traffic safety.⁹ Of the three Build Alternatives, Alternative 9 Modified best meets state highway design standards at the connection to I-215 based upon design criteria for interchange spacing.
4. **Provide limited access facility.** All Build Alternatives have been designed to be limited access transportation facilities with interchange spacing of at least 1 mile. All alternatives provide eight access points via local service interchanges.¹⁰
5. **Accommodate STAA trucks.** Based on the design for each alternative, all Build Alternatives will meet or exceed Surface Transportation Assistance Act (STAA) truck requirements.¹¹
6. **Provide a facility that is compatible with a future multimodal transportation system.** All Build Alternatives will accommodate future multimodal opportunities.¹²
7. **Provide an effective and efficient connection between and through San Jacinto and Perris.** All Build Alternatives have been designed to effectively and efficiently provide a connection between and through the Cities of San Jacinto and Perris; however, Alternative 9 Modified provides the most direct west-east route between I-215 and SR-79. By comparison, Alternative 4 Modified is approximately 1.5 miles longer than Alternative 9 Modified.¹³

II. Reasonable and Practicable

1. **Cost.** This criterion addresses the total cost of each alternative including the costs of construction, right of way (ROW) acquisition, environmental mitigation, and engineering/design. The least expensive Build Alternative is Alternative 9 Modified at \$1.61 billion, with Alternatives 4 Modified and 5 Modified being more costly at \$2.10 and \$1.72 billion, respectively.¹⁴
2. **Technological Constraints.** All Build Alternatives were deemed to have no technological constraints, including safety and/or engineering issues.
3. **Logistical Constraints.** All Build Alternatives were deemed to have no logistical constraints.
4. **Other NEPA/404 Criteria.** All Build Alternatives do not pose any unacceptable adverse social, economic, or environmental impacts or result in any serious community disruption that would be so severe as to render these alternatives unreasonable or impracticable.¹⁵

III. Environmental Impacts

While the ROW limits have been defined for each Build Alternative, engineering plans are only at a 30 percent design stage; therefore, it is not possible to precisely quantify

permanent versus temporary impacts within the proposed ROW limits. To help provide an initial estimate of permanent versus temporary impacts for use in the Preliminary LEDPA support documents and for the MSHCP consistency analysis, the project engineer has provided guidance that the following project features would result in permanent impacts within the proposed ROW: paved areas of the MCP (including the freeway mainline, ramps, and local roadway improvements), structures (including retaining walls, noise barriers, bridge columns, and abutments), drainage and water quality features such as culverts and operational best management practices (BMPs) for water quality, fencing, staging areas, and cut/fill areas. While the level of engineering is not refined enough to determine the extent of temporary impacts outside of the cut/fill lines at this point, a worst-case assumption was made that all areas within the ROW footprint are calculated as permanent impacts.

However, the design at the bridged locations is refined enough to identify temporary impacts at these locations. USACE jurisdictional areas spanned by bridges and areas used for access within the ROW were classified as temporary impacts if no fill material would be placed in these areas during construction activities, with the ability to restore these areas following construction.

Temporary impacts also include a buffer around bridged areas, extending to the MCP project footprint, for the construction of bridge structures. Additional areas, based on grading plans, which the project engineer determined would be avoided or would consist of temporary impacts, were also assessed individually for each bridge location. Within bridged areas, if permanent fill material would likely be placed in the USACE jurisdictional areas, permanent impacts were conservatively calculated as 10 percent of the bridge area, with the remaining 90 percent calculated as temporary impacts.

The areas beneath bridges are considered permanent impacts due to shading for special-status species, sensitive plant communities, and CDFW jurisdiction. Shading impacts are included within the total area requiring mitigation for sensitive resources.

Engineering refinements have enabled retaining walls to be used where cut and fill was previously proposed in order to reduce the impacts to Los Angeles pocket mouse (LAPM) habitat. Temporary impacts will occur from construction of the proposed retaining wall. However, given the potential for this construction to take a few years, temporary loss of LAPM habitat from the construction-related impacts are included within the total acreage that will be mitigated as permanent impacts.

The following discussions of the environmental criteria apply only to the three MCP Build Alternatives (Alternatives 4 Modified, 5 Modified, and 9 Modified) and not to the No Project/No Action Alternatives (1A and 1B).

1. Water Resources/Aquatic Ecosystem

1.1 and Jurisdictional Waters/Wetlands Impacts (including vernal pools). These

1.1A criteria assess the acreage of federal jurisdictional waters of the U.S. and state jurisdictional waters directly impacted by each alternative. As for permanent impacts to federal jurisdictional waters of the U.S. (wetland and nonwetland), the results are very similar, with Alternative 4 Modified

impacting 5.34 acres, Alternative 5 Modified impacting 5.15 acres, and Alternative 9 Modified impacting 5.01 acres. For permanent impacts to state jurisdictional waters, the results are also within a fairly narrow range (7.31–8.34 acres), with Alternative 4 Modified impacting 8.34 acres, Alternative 5 Modified impacting 7.31 acres, and Alternative 9 Modified impacting 7.50 acres.¹⁶

A breakdown of temporary impacts for each alternative is provided in Table A.

- 1.2 Hydrology Impacts.** Based on the Riparian Ecosystem Integrity Assessment (provided as Appendix G in the *Supplement to the Natural Environment Study for the Mid County Parkway Project*, December 2011) prepared by the USACE Engineer and Research Development Center (ERDC), Alternative 5 Modified has the lowest sum of normalized rank scores for all criteria (hydrology, water quality, and habitat) for alternative corridor alignments at 8.9. A lower sum normalized rank score equates to a higher ranking (i.e., the alternative has lower impacts). The next lowest score is 9.2 for Alternative 9 Modified, and the highest score is 12.1 for Alternative 4 Modified.¹⁷
- 1.3 Consistent with SAMP Goals.** This criterion assesses each alternative's ability to meet aquatic resource conservation goals in the proposed Special Area Management Plan (SAMP) for western Riverside County. The SAMP was never finalized and approved; therefore, data are not available to compare each alternative.¹⁸
- 1.4 Floodplain Impacts.** There are three 100-year floodplains in the MCP study area: Perris Valley Storm Drain, San Jacinto River at Lakeview, and San Jacinto River at SR-79. All three Build Alternatives would have a longitudinal encroachment on the San Jacinto River at SR-79 and transverse encroachments on the San Jacinto River at Lakeview. Alternatives 5 Modified and 9 Modified will have transverse encroachments at Perris Valley Storm Drain, and the Alternative 4 Modified encroachment at that location would be longitudinal.¹⁹
- 1.5 Beneficial Uses Affected.** There are a number of beneficial uses present in the MCP study area. Municipal and domestic water supply, agricultural water supply, industrial service supplies, groundwater recharge, water contact recreation, noncontact water recreation, warm freshwater habitat, and wildlife habitat are the primary beneficial uses present in the MCP study area. With implementation of the BMPs included in the Build Alternatives, no adverse effects to beneficial uses will result from construction or operation of any of the Build Alternatives.²⁰
- 1.6 and 1.7 Water Quality Impacts.** Impacts resulting from soil disturbance during construction and acres of new pavement are anticipated to be the least under Alternative 9 Modified, with 1,091 acres and 479.5 acres, respectively.

Alternatives 4 Modified and 5 Modified would have similar amounts of disturbed soil (1,153 acres and 1,145 acres, respectively) and new pavement (525 acres and 519.6 acres). All Build Alternatives will be constructed through similar areas with respect to the acreage of steep slopes affected (6.0 acres for each Build Alternative).²¹

Alternative 4 Modified would be constructed over 13 streams, compared to 11 streams for Alternatives 5 Modified and 9 Modified.²²

With the proposed treatment BMPs implemented, all the Build Alternatives would decrease the annual loading of total suspended solids to surface waters.²³

- 2. Threatened and Endangered Species.**²⁴ This criterion assesses the acreage of impacts to habitat of federally listed threatened and endangered wildlife and plant species. Impacts to habitat for species covered under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) including San Bernardino kangaroo rat are listed by acres of mapped critical habitat area impacted. Table A also lists impacts to occupied habitat for least Bell's vireo. All the Build Alternatives impact the same total acres of habitat for the special-status species described above.

In addition to wildlife, all Build Alternatives would impact areas of long-term conservation value for the following two plant species:

- San Jacinto Valley crownscale (0.36 acre under all Build Alternatives)
- Spreading navarretia (1.09 acres under all Build Alternatives)

Given the potential for project construction to take up to 4 years, any temporary loss of habitat from the construction-related impacts are included within the total acreage of mitigation. All impacts to threatened and endangered species are considered permanent within the ROW and will be mitigated as permanent impacts.

- 3. Plant Communities.**²⁵ This criterion assesses each alternative's impacts on sensitive plant communities in the study area, including Diegan coastal sage scrub, Riversidean upland sage scrub, and peninsular juniper woodland/scrub. The impacts are similar for all Build Alternatives. Impacts to Riversidean upland scrub are lowest for Alternative 9 Modified at 87.0 acres, with 2.4 and 5.5 more acres for Alternatives 5 Modified and 4 Modified, respectively. As shown in Table A, permanent and temporary impacts to San Jacinto River alkali communities are the same for all alternatives. As shown in Table A, temporary impacts to riparian/riverine areas are the same for all alternatives (2.7 acres). Permanent impacts to riparian/riverine areas are the same for Alternatives 4 Modified and 9 Modified at 2.7 acres, with impacts for Alternative 5 Modified slightly lower at 2.6 acres.
- 4. Effects on Existing HCPs.**²⁶ Alternatives 4 Modified, 5 Modified, and 9 Modified would not require the acquisition of any Reserve Land in the Habitat Conservation Plan for the Stephens' Kangaroo Rat (HCP for SKR) Reserves.

5. **Western Riverside County MSHCP.**²⁷ This criterion assesses each alternative's acreage of impact to the MSHCP Criteria Area and Conservation Area, which are essentially the same for all Build Alternatives. However, the impacts to Public/Quasi-Public (PQP) lands are lowest for Alternative 9 Modified at 3.8 acres, with 4.3 acres for Alternative 5 Modified, and 7.3 acres for Alternative 4 Modified. All Build Alternatives would require an MSHCP Consistency Determination if selected. Through the MSHCP consistency review process, mitigation acreage has only been preliminarily identified for Alternative 9 Modified, but the mitigation acreage required would be similar for all Build Alternatives.
6. **Section 4(f) Properties.**²⁸ This criterion identifies the Section 4(f) properties affected by direct use impacts under each Build Alternative (none of the alternatives were determined to have constructive use impacts). All Build Alternatives impact 3.4 acres of the San Jacinto Wildlife Area, 5.18 acres of the Multiuse Prehistoric Site P-33-16598 (CA RIV-8712), which was determined to be eligible for the National Register of Historic Places (National Register), and four archaeological sites that were assumed to be eligible for the National Register for this undertaking (the MCP project).
7. **Section 6(f).** Alternatives 4 Modified, 5 Modified, and 9 Modified do not impact Section 6(f) lands.
8. **Cultural Resources.**²⁹ This criterion quantifies the total number of previously recorded prehistoric, historic, and sacred resources within the Area of Potential Effects for each alternative listed on or eligible for listing in the National Register. All the MCP Build Alternatives impact a total of six archaeological resources either determined or assumed to be eligible for the National Register. Of the six archaeological resources, four would be fully impacted by all Build Alternatives, one would be partially impacted, and one would be avoided during construction through an Environmentally Sensitive Area designation.
9. **Land Use Impacts.** This criterion assesses key factors addressing land use impacts from implementation of the MCP project, including business and residential access, consistency with local plans, and acreage of affected farmland. As listed in Table A, all Build Alternatives affect business and residential access, both temporary and permanent. All Build Alternatives will disrupt local access to some degree during construction due to changes required to the local circulation system to accommodate the MCP project. For comparative reasons, a ranking of 1 through 3 was assigned to each alternative, 1 being the least impacting, and 3 being the most impacting. Alternative 4 Modified was deemed to be the least impacting, and Alternative 5 Modified would be the most impacting of the three Build Alternatives to business access, and Alternative 9 Modified would be the most impacting of the three Build Alternatives to residential access.

Alternative 4 Modified would have the fewest residential and total property acquisitions. Alternative 9 Modified results in the fewest business and employee displacements, but the most residential displacements of the MCP Build Alternatives.³⁰

With regard to overall General Plan Consistency, adoption of any of the MCP Build Alternatives will require the County of Riverside and the Cities of Perris and San Jacinto to amend their General Plan Land Use and Circulation Elements to reflect the final MCP alignment, interchange locations, and elimination or modification of any land use designations on land that would need to be acquired for the project.³¹

Farmland directly affected by each alternative was also assessed. Alternative 9 Modified would affect the fewest total acres (1,042 acres), followed by Alternative 5 Modified (1,062 acres). The greatest effects to total farmland result from Alternative 4 Modified (1,107 acres).³²

- 10. Socioeconomic/Community Impacts.** This criterion assesses various socioeconomic and community impacts of each Build Alternative. Beneficial effects include improved access to the regional transportation system, while adverse effects include residential/business displacements and effects on community cohesion. Impacts to travel patterns were assessed during the evaluation. All Build Alternatives will disrupt local travel patterns to some degree during construction due to temporary detours. For comparative reasons, a ranking of 1 through 3 was assigned to each alternative, 1 being the least impacting and 3 being the most impacting. Alternative 4 Modified was deemed to be the least impacting to existing travel patterns, and Alternative 5 Modified would be the most impacting of the three Build Alternatives.³³ Alternative 9 would not affect any schools, and Alternatives 4 Modified and 5 Modified would both affect Val Verde High School.³⁴

Support of an alternative by the affected local jurisdictions is also considered. Based on comments received on the RDEIR/SDEIS, the City of Perris City Council expressed a unanimous preference for Alternative 9 Modified, with no preference expressed regarding Design Variations. The City of San Jacinto did not express a preference for an alignment alternative, but is opposed to the SJN DV because it is not as compatible with existing and future land uses in the City as the southerly “Base Case” alignment. The County of Riverside did not express a preference for an alignment alternative, but did express a strong preference for the SJRB DV.

- 11. Air Quality.**³⁵ This criterion measures differences in emissions among the Build Alternatives and whether any alternatives would result in emissions standards being exceeded. Operation of all the Build Alternatives would generate approximately the same quantity of pollutants, and none of them result in exceedances of any emission standards.
- 12. Noise.**³⁶ The noise criterion measures both the total number of sensitive receptors that would approach or exceed FHWA’s Noise Abatement Criteria and the total amount of noise abatement required. Alternative 9 Modified resulted in the least amount of receptors that would experience adverse noise impacts but would require the largest number of noise walls (six) and the longest length of noise walls at 21,095 linear feet of walls.

Conclusion

Based on the results of the selection criteria for the MCP Build Alternatives, Alternative 9 Modified is recommended to be designated as the preliminary LEDPA alignment in the Final EIR/EIS.

In general, the environmental impacts of Alternative 4 Modified are consistently greater than the impacts of Alternatives 5 Modified and 9 Modified. Based on the key evaluation criteria for the MCP Build Alternatives, the impacts to natural resources are not substantially different between the Build Alternatives, particularly east of the City of Perris due to the common alignment in this area, and particularly for Alternatives 5 Modified and 9 Modified. Alternative 9 Modified has slightly more total (permanent and temporary) impacts to federal jurisdictional waters than Alternative 5 Modified (0.6 acre), and is ranked slightly higher than Alternative 5 Modified in hydrology impacts (normalized rank score of 8.9 for Alternative 5 Modified and 9.2 for Alternative 9 Modified), but has lower water quality impacts. Alternative 9 Modified has lower impacts to Riversidean upland scrub communities than Alternative 5 Modified (by 2.4 acres), and less impacts to PQP lands.

With respect to land use and socioeconomic impacts, Alternative 9 Modified has substantially fewer business and employee displacements. Although Alternative 9 Modified has the highest residential displacements, it would not result in a disproportionate impact to minority/low income populations, whereas Alternative 5 Modified would because of its impacts to employment-generating land uses. Alternative 9 Modified has the least impacts to farmland overall and prime farmland, and is the only alternative with no impacts to schools. The City of Perris has selected Alternative 9 Modified as its locally preferred alternative, and has expressed interest in selecting an alternative that is least impacting to businesses and employment in its community.

Finally, Alternative 9 Modified is the most cost-effective Build Alternative, costing \$110 million (over 7 percent) less than Alternative 5 Modified and \$490 million (30 percent) less than Alternative 4 Modified.

ANALYSIS OF THE DESIGN VARIATIONS AND SECTION 404 NO FEDERAL ACTION ALTERNATIVE

Design Variations

There are two Design Variations for Alternative 9 Modified (the SJRB DV and the SJN DV), which must be considered in order to complete the identification of the preliminary LEDPA. For most of the selection criteria, there are few, if any, differences between the Alternative 9 Modified Base Case and the Design Variations. As with the analysis of Alternatives 4 Modified, 5 Modified, and 9 Modified above, the following discussion highlights the differences that do exist; information for each criterion is provided in Table B, Detail Matrix of the Evaluation of Alternative 9 Modified Design Variations.

Section 404 No Federal Action Alternative

The Section 404 No Federal Action Alternative would provide essentially the same highway facility and capacity as Alternative 9 Modified, with the exception that culvert crossings would be replaced with bridges and other project structure features would be modified to avoid all dredging and filling in Waters of the U.S. As a result, the Section 404 No Federal Action Alternative would meet the project purpose.

When compared to Alternative 9 Modified, the Section 404 No Federal Action Alternative could potentially result in greater impacts related to the following environmental parameters, as a result of modifications to 9 bridge structures and the placement of 35 additional bridge structures:

- Potential for increased risks associated with seismic effects on structures as a result of the substantial increase in bridge structures included in this alternative.
- Potential increase in short-term related air quality and noise effects as a result of the construction of substantially more structures than in Alternative 9 Modified.
- Potential for the Section 404 No Federal Action Alternative to require substantially more concrete, steel, and other materials used to constructed bridges. Use of these resources would increase greenhouse gas emissions attributable to the project.

When compared to Alternative 9 Modified, the Section 404 No Federal Action Alternative could potentially result in beneficial effects or reduced adverse effects related to the following parameters, as a result of modifications to 9 bridge structures and the placement of 35 additional bridge structures to avoid waters of the U.S. in and near water courses and floodplains:

- Avoidance of impacts to waters of the U.S. and similar reductions in impacts to other waters;
- Reduced changes in local hydrology and floodplains;
- Potential for slightly reduced effects on natural communities and associated plants and animals, including threatened and endangered species; and
- Slightly reduced impacts to wildlife movement, especially in open space or other undeveloped areas, due to greater openness ratio.

The Section 404 No Federal Action Alternative would not be expected to result in impacts substantially different than the impacts of Alternative 9 Modified related to growth, utilities and emergency services, traffic and transportation, cultural resources, paleontology, hazardous materials and wastes, water quality and storm water runoff, long-term air quality and noise, and invasive species.

I. Purpose and Need³⁷

All of the Design Variations satisfy all of the Purpose and Need criteria.

II. Reasonable and Practicable

- 1. Cost.**³⁸ This criterion addresses the total cost of each Design Variation, including the costs of construction, ROW acquisition, environmental mitigation, and engineering/design. The SJN DV would save \$80 million, and the SJRB DV would save \$30 million compared to the Base Case.

The Section 404 No Federal Action Alternative would cost approximately \$340 million (21 percent) more than the Base Case due to the design and construction of 44 bridges for all waters of the U.S. rather than culverts or fill. A detailed cost estimate for the Section 404 No Federal Action Alternative is provided as an attachment. Because of this significantly greater cost, the Section 404 No Federal Action Alternative was determined to not be practicable. Therefore, the Section 404 No Federal Action Alternative is not evaluated any further in this Preliminary LEDPA analysis.

- 2. Technological Constraints.** The SJRB DV was deemed to have no technological constraints that would preclude construction or long-term operation of the MCP project, including that of safety and/or engineering issues.

The SJN DV results in non-standard interchange spacing at the MCP/SR-79 interchange. Specifically the SJN DV has less distance from the existing Gilman Springs/SR-79 interchange to the MCP/SR-79 than the southerly Base Case alignment. The distance is 1.4 miles to 1.8 miles, respectively, a difference of 0.4 mile. To provide for safe and efficient traffic operations, Caltrans standard per HDM 501.3 of the Highway Design Manual (May 2012) requires a minimum of 2 miles between service and systems interchanges.

The SJN DV provides less distance between the MCP/SR-79 and the SR-79/Gilman Springs interchange affecting the weaving distances. In the northbound direction, the southerly Base Case alignment meets the standard for weaving of 5,000 feet, while the SJN DV does not meet the standard, providing only 3,200 feet. The southbound weaving section is also affected with the southerly Base Case alignment providing 600 more feet for weaving.

- 3. Logistical Constraints.** None of the Alternative 9 Modified Design Variations were deemed to have logistical constraints.
- 4. Other NEPA/404 Criteria.**³⁹ None of the Alternative 9 Modified Design Variations would pose any unacceptable adverse social, economic, or environmental impacts or result in any serious community disruption that would be so severe as to render these Design Variations unreasonable or impracticable.

III. Environmental Impacts

1. Water Resources/Aquatic Ecosystem

- 1.1 Jurisdictional Waters/Wetlands Impacts (including vernal pools).**⁴⁰ These criteria assess the acreage of federal jurisdictional waters of the U.S. and state jurisdictional waters directly impacted by each Design Variation. Separate discussion of each Design Variation is provided below.

SJRB DV: As shown in Figures B-1 and B-4, the impacts of the SJRB DV on federal and state waters would be the same as impacts under the Base Case.

SJN DV: With respect to federal jurisdictional waters of the U.S. (wetland and nonwetland), the SJN DV would reduce permanent impacts by 0.76 acres (18 percent) compared to the southerly Base Case alignment (see Figures B-2 and B-3). For state jurisdictional waters, the SJN DV would increase permanent impacts to CDFW riparian area compared to the Base Case by 0.37 acre (5 percent) (see Figures B-5 and B-6). Although permanent impacts to the federal jurisdictional area are less in the SJN DV, the impacts to overall aquatic resources affected by the SJN DV are of higher value due to the greater extent of impacts associated with the riparian habitat and wetlands adjacent to the San Jacinto River. The aquatic resources affected by the SJN DV are of higher value due to proximity and association with the San Jacinto River, wetlands adjacent to the river, and riparian habitat occupied by endangered species (least Bell's vireo and San Bernardino kangaroo rat). The SJN DV would have slightly fewer impacts to wetlands located south of Ramona Expressway. However, these wetlands consist of lower value agricultural ponds, which have minimal contribution to the functions and values of aquatic resources at the San Jacinto River.

- 1.2 Hydrology Impacts.**⁴¹ Based on the Riparian Ecosystem Integrity Assessment prepared by ERDC, the SJN DV has a slightly lower sum (i.e., a slightly better ranking) of normalized rank scores for all criteria (hydrology, water quality, and habitat) at 9.0 compared to the Base Case value of 9.2.

The SJRB DV has a higher sum (i.e., a worse ranking) of normalized rank scores with a score of 10.8, compared to the Base Case score of 9.2.

- 1.3 Consistent with SAMP Goals.**⁴² This criterion assesses each alternative's ability to meet aquatic resource conservation goals in the proposed SAMP for western Riverside County. The SAMP was never finalized and approved; therefore, data are not available to compare each alternative.

- 1.4 Floodplain Impacts.**⁴³ There are three 100-year floodplains in the MCP study area: the Perris Valley Storm Drain, the San Jacinto River at Lakeview, and the San Jacinto River at SR-79. All Design Variations will have a longitudinal encroachment on the San Jacinto River at SR-79 and transverse encroachments at the San Jacinto River at Lakeview and at the Perris Valley Storm Drain. The

most substantial differences among the Design Variations are associated with the amount of fill in parts of the floodplain, rather than fill in waters of the U.S.

SJN DV: For the longitudinal encroachment on the San Jacinto River at SR-79, the SJN DV has a slightly greater impact than the Base Case southerly alignment as it provides a minimum freeboard of 0.76 feet between the roadway and the water surface elevation, compared to a minimum freeboard of 0.92 feet under the Base Case southerly alignment.

The area where SJN and SJS differ is at SR-79. The SJN DV would have a maximum increase in water surface elevation of 0.35 feet. The southerly Base Case alignment would have a maximum increase in water surface elevation of 0.10 foot. Therefore, the SJN DV would have a greater impact to the 100-year floodplain than the southerly Base Case alignment. However, this increase would be localized and would occur near the new alignment, upstream of the San Jacinto Wildlife Area. The change in water surface elevation decreases farther away from the alignment, so there would be no change in water surface elevation at the river where the alignment crosses the wildlife area (the portion of the wildlife area near Lake Perris).

SJRB DV: The major difference among the Design Variations is associated with the SJRB DV, which would place more fill in the San Jacinto River floodplain near Lakeview than with the Base Case, although this fill would not be in waters of the U.S.

Although the SJRB DV includes two sections of columns (531 feet and 1,941 feet, respectively) and 1,849 linear feet of fill (approximately 10 acres) within the San Jacinto River 100-year floodplain, this encroachment into the San Jacinto River 100-year floodplain will not result in hydrologic/hydraulic or biological impacts to the San Jacinto River. To assess the potential effect of the floodplain encroachment on the river upstream and downstream of the proposed bridge, the existing and proposed bridge conditions are explained below in more detail. Three distinct areas were analyzed, and the results of that analysis are summarized below. In addition, a copy of the presentation on the hydrology of the Base Case bridge and the SJRB that was presented to the RAC group on November 20, 2013, is provided as an attachment to this report.

First, there is the area upstream (north) of the existing Ramona Expressway Bridge (this existing bridge will not be modified by the MCP project). The 100-year floodplain for the area upstream of the MCP crossing of the San Jacinto River goes into the San Jacinto Wildlife Area. For that area, the analysis determined that there would be a maximum of 0.16 feet of water surface elevation (WSE) change as a result of the SJRB DV. The water surface upstream of the existing Ramona Expressway Bridge would rise a maximum of 0.16 feet, and the flow velocity would decrease by a maximum of approximately 0.6 feet per second for a reach spanning approximately 82 feet upstream of the existing bridge structure. The rise in water surface would be minimal. A 0.16-foot (1.9-inch) rise in flow depth in a 100-year event represents

a 1.3 percent increase in calculated flow depth. This small increase would not be observable in a 100-year event. This calculation is the numerical difference in a hydraulic model that is beyond the precision warranted for a river system the size of the San Jacinto River. However, the corresponding decrease in flow velocity represents a 9 percent reduction in the erosive potential of the river. The reduced flow velocity reduces the erosive potential of flow upstream of the existing Ramona Expressway. A 2008 study by the U.S. Department of the Interior, Bureau of Reclamation (titled *Upper San Jacinto River Sediment Transport Study, San Jacinto, CA*) indicates that 6,000 tons of bed material are deposited in the area of the river between Lake Park Drive and Bridge Street in an average year of river flow due to the existing concave bed profile. This equates to 90 percent of the sediment transported from the upper watershed. Therefore, it would be expected that the river would have an increased sediment carrying capacity downstream of Bridge Street and thus, the relative decrease in flowrate that will result from the Design Variation bridge would reduce the erosion potential of the river, producing this project-related benefit.

The second distinct area of study occurs downstream of the proposed SJRB DV. This area would not experience any change in WSE and flow rate/velocity as a result of the SJRB DV. The behavior of the water downstream of the SJRB DV is controlled by the existing Ramona Expressway Bridge, which will remain in place and would not be changed by the MCP project. Therefore, because of the existing Ramona Expressway Bridge, there would be no discernible change in the water levels or water footprint as a result of the fill needed to construct the SJRB DV. In the existing and proposed (i.e., with SJRB DV) conditions, the area downstream of the proposed SJRB DV has a flow depth of approximately 8.73 feet and a flow velocity of 2.4 fps. There would be no change to the downstream conditions with the SJRB DV and, therefore, there would be no change to biological resources downstream of the SJRB DV.

The third area of study occurs in the area between the existing Ramona Expressway Bridge and the proposed SJRB DV. This area is approximately 4,000 feet long and approximately 118 feet wide in the area between these two bridges. This area would be affected by abutments for the SJRB DV and would experience a WSE rise of 3.2 feet although this increase would only occur in a 26-foot area upstream of the proposed SJRB DV and downstream of the existing Ramona Expressway Bridge. This area would also experience a WSE elevation change, which would be a benefit as the flow velocity would be decreased by 4.3 feet per second and would reduce the erosive potential of the San Jacinto River during a 100-year event.

Based on the analysis results described above, because there would be negligible changes to the velocity and WSE elevations upstream of the existing Ramona Expressway Bridge and no observable difference in the downstream portion of the proposed SJRB DV from the existing 100-year conditions without the project, there would not be any expected impacts to the existing biological resources (i.e., plants) in those areas. For the area between the existing Ramona

Expressway Bridge and the proposed SJRB DV, there would be an increase in land that is currently not underwater that would be underwater during a 100-year event. RCTC will provide mitigation for the loss of area that supports habitat suitable for long-term conservation for San Jacinto Valley crownscale, spreading navarretia, Coulter's goldfields, and smooth tarplant (as shown on Figure 3.17.3 in the RDEIR/SDEIS), as well as for alkali communities in the San Jacinto River floodplain at Lakeview.

High Flow Events: In the proposed condition with the MCP project, the flow will overtop the existing Ramona Expressway as it does today. When the flow encounters the proposed Base Case or SJRB DV bridge, it will flow between the bridge piers and the bridge abutments, and will flow beneath the bridge deck. The hydraulic model does not indicate that there will be any overtopping of the analyzed flowrates for either proposed bridge in a storm event up to and including the 100-year storm event. As a result of flow friction and reduced flow area from the proposed bridge piers, the flow velocity is reduced as it flows beneath the proposed bridge. As a result of the reduced flow velocity, the flow depth increases slightly compared to the existing condition. The calculated reduction in flow velocity and increase in flow depth is limited to the area between the existing Ramona Expressway and the proposed bridge for the 10-year and 25-year storm events. In a 100-year event, the design variation bridge results in a calculated increase in the water surface elevation of 0.1 meter (3.9 inches). This increase extends approximately 7 meters (23 feet) upstream of the existing Ramona Expressway Bridge.

The 10-year Q is 127.4 cubic meters per second (cms) (approximately 4,500 cubic feet per second [cfs]); 25-year Q is 274.7 cms (approximately 9,700 cfs). A review of the existing United States Geological Survey (USGS) stream gauge 1107210 historical data for the San Jacinto River at Ramona Expressway indicates that there have only been five gauge readings above 0.0 cfs at this location since 2001. The readings were, 2.7 cfs, 0.19 cfs, 3.6 cfs, 19 cfs, and 3 cfs. This seems to indicate that the lower return interval events (2-year and 5-year, etc.) do not produce sufficient volume to result in measurable flow in the San Jacinto River. In addition, there is insufficient historical gauge data to provide a statistical analysis of the readings to generate the other requested corresponding storm frequency flow rates.

Potential for Flooding within San Jacinto Wildlife Area: The calculated increase in flow depth in a 100-year event is 0.1 meter (10 centimeters or 3.9 inches). The result of the increase in flow depth is an increase in the surface area wetted by approximately 20 square meters. It should be noted that hydrology is an imprecise science. It is probability-based and produces hydrograph ordinates in confidence interval bins. In a high-confidence hydrology analysis, there is typically a 90 percent confidence probability that calculated flowrate for a 100-year event is within 5 percent of calculated value. Therefore, hydraulic analysis with decimal fraction precision is unwarranted and can be misleading. Since this analysis compares events with 1 percent

chance exceedance (100-year) and at best a 90 percent confidence accuracy interval, a 10-centimeter differential in calculated water surface elevation is negligible in a watershed the size of the San Jacinto River watershed. Also, while peak flowrates are thought of as constant, in actuality they are instantaneous and only last for a moment on a flood wave (runoff hydrograph). The level of precision that can be attained estimates that the peak will last typically anywhere from 1 minute to 30 minutes for a hydrograph resulting from mountainous terrain such as the San Jacinto Mountains. In a very large watershed such as the San Jacinto River watershed, the peak flowrate duration would be closer to 30 minutes than 1 minute and probably around 20 minutes. Therefore the additional 20-square-meter area that may be wetted by the 0.1-meter rise in water surface will be wetted for approximately 20 to 30 minutes.

Downstream Effects: The San Jacinto River operates in the subcritical flow regime due to the very flat slope, relative high roughness, and a large contact surface between the flowing water and the floodplain surface (wetted perimeter), which is typical of a wide flat floodplain. Subcritical flow can be thought of as low energy, laminar, tranquil flow. Subcritical flow is only controlled and affected by downstream structures or activities. Therefore, structures or activities located upstream of an observation point in the river have no effect on the flow characteristics downstream of that point when flow is subcritical.

1.5 Beneficial Uses Affected.⁴⁴ There are no quantified differences in beneficial uses among the Design Variations.

1.6/1.7 Water Quality Impacts.⁴⁵ Impacts resulting from soil disturbance during construction and acres of new impervious surfaces (roadway pavement and concrete embankments) are anticipated to be the least under the SJN DV, which would have 13 acres (1.2 percent) less of soil disturbance and 19.2 acres (4.0 percent) less new pavement compared to the Base Case.

The SJRB DV would have 3.5 acres (0.3 percent) more of soil disturbance and the same amount (479.5 acres) of new impervious surfaces compared to the Base Case.

2. Threatened and Endangered Species.⁴⁶ There would be less than 0.1 acre difference in effects among the Design Variations under this criterion. For federally listed threatened and endangered wildlife species, the SJN DV impacts 3.6 acres of least Bell's vireo habitat (0.1 acre less than under the Base Case and SJRB DV; see Figure B-7) and 1.8 acres of occupied San Bernardino kangaroo rat habitat (0.1 acre more than under the Base Case and SJRB DV; see Figure B-8). For federally listed threatened and endangered plant species, the Base Case, SJN DV, and SJRB DV all impact 0.36 acre of San Jacinto valley crowscale habitat of long-term conservation value and 1.09 acres of spreading navarretia habitat of long-term conservation value. Long-term conservation value areas of listed plant species include all occupied habitat of those species, as well as local watershed and buffer areas. As discussed in Section 4.1.1.3 of the Supplemental Natural Environment Study (NES), the

assessment of impacts to spreading navarretia included an analysis of the primary constituent elements (PCEs) of Critical Habitat, and the area of long-term conservation value delineated for that species included all areas of Critical Habitat with PCEs. The USFWS has identified the PCEs as providing the necessary functions and processes to support the plants. As noted in Sections 4.1.3.1 and 4.2.1.1 of the Supplemental NES, the San Jacinto River alkali communities in the project area are dominated by nonnative species, and the generally dense cover of nonnatives restricts natives such as spreading navarretia and San Jacinto valley crownscale to artificial depressions and disturbed areas. Despite the reliance of San Jacinto Valley crownscale on human-induced disturbance in the project area, a conservative approach was taken and all occupied areas, together with buffers around those areas, were considered to have long-term conservation value for purposes of calculating impacts to the species. The less-disturbed areas of the site are unsuitable due to the generally dense cover of nonnative species. Given the potential for this construction to take a few years, any temporary loss of habitat from the construction-related impacts are included within the total acreage of mitigation. All impacts to threatened and endangered species are considered permanent within the ROW and will be mitigated as permanent impacts.

3. **Plant Communities.**⁴⁷ The SJRB DV would result in permanent impacts to 5.8 acres (28 percent) more of San Jacinto River alkali plant communities than the Base Case or the SJN DV (see Figure B-9). The alkali soils within portions of the San Jacinto River floodplain in the Lakeview area support a number of narrow endemic plant species that are unique to this area. Permanent impacts to San Jacinto River alkali plant communities result from both fill and from shading under the bridge. For the Base Case bridge, the 20.9 acres of permanent impacts include 2.2 acres due to fill, 8.5 acres due to shading, and 10.2 acres of other impacts within the project footprint considered to be permanent. For the SJRB DV, the 26.6 acres of permanent impacts include 10.6 acres due to fill, 4.8 acres due to shading, and 11.4 acres of other impacts within the project footprint considered to be permanent. With regard to temporary construction impacts, the Base Case bridge results in 7.2 acres of impacts to San Jacinto River alkali plant communities compared to 3.5 acres of temporary construction impacts under the SJRB DV (see Figure B-10). As part of the MSHCP consistency determination process, RCTC has committed to mitigating these impacts to San Jacinto River alkali plant communities by acquiring (as well as restoring and/or enhancing) at least 35.0 acres of similar habitat within either the vernal pool complex in Noncontiguous Habitat Block 7 of the MSHCP Criteria Area, since that area has similar soils and known sensitive plant locations, or within the floodplain of the San Jacinto River in the Lakeview area. Therefore, although there are impacts from the SJRB DV to rare alkali plant communities, the project will be providing better quality habitat, as well as some restoration/enhancement to the same rare alkali habitat in areas that have better long-term conservation value.

The SJN DV would permanently impact 3.4 acres of riparian habitat, compared to 2.4 acres under the Base Case and the SJRB DV. Permanent impacts include shade impacts beneath bridges. With regard to temporary construction impacts to riparian

habitat, the SJN DV would result in 0.8 acre of temporary impacts compared to 2.7 acres of temporary impacts under the Base Case and the SJRB DV (see Figures B-11 through B-14). As part of the MSHCP consistency determination process, RCTC has committed to mitigating permanent impacts to riparian habitat through off-site preservation by acquiring (as well as restoring and/or enhancing) 11.0 acres of similar habitat. Temporary impacts to riparian habitat will be mitigated through on-site restoration following completion of construction.

- 4. Effects on Existing HCPs.**⁴⁸ The Base Case design, the SJN DV, and the SJRB DV would not require the acquisition of any Reserve Land in the HCP for SKR Reserves.
- 5. Western Riverside County MSHCP.**⁴⁹ The SJN DV and SJRB DV would affect 1 to 2 acres (up to 1 percent) more of MSHCP Criteria Area, respectively, than the Base Case, and the SJRB DV would affect 2 acres (3 percent) more of MSHCP Conservation Area than the Base Case or SJN DV (see Figures B-15 and B-16).
- 6./7./8. Section 4(f) Properties, Section 6(f) Lands, and Cultural Resources.**⁵⁰ There are no differences among the Design Variations for these criteria.
- 9. Land Use Impacts.**⁵¹ There are very few differences among the Design Variations with respect to land use impacts, although the SJN DV impacts 9 acres (less than 1 percent) less farmland than the Base Case (Criterion 9.3).

With regard to business and residential access (Criterion 9.1), there are no differences between the SJRB DV and the Base Case.

The SJN DV would result in impacts to local access that would not result from the southerly Base Case alignment. Specifically, in the case of the SJN DV, a portion of Ramona Expressway becomes isolated from connection to downtown San Jacinto. The portion between Warren Road and SR-79 is cut off at SR-79. For the southerly Base Case alignment, this piece of Ramona Expressway is able to remain as a continuous crossing under SR-79 and continuing into downtown San Jacinto. In the case of the SJN DV, isolating this piece of roadway severely impacts the accessibility to the surrounding parcels. Travelers would need to take a circuitous route travelling through the SR-79/Ramona Expressway interchange and two additional traffic intersections to reach the isolated section of the Ramona Expressway, in some cases, going east to only turn around to go back west if Record Road does not cross SR-79 at that location. The isolated portion of Ramona Expressway would have less through traffic and, therefore, have an impact to proposed businesses.

- 10. Socioeconomic/Community Impacts.**⁵² The SJN DV would have 10 fewer non-residential property acquisitions and displace 2 fewer businesses, although more employees would potentially be displaced than with the Base Case and the SJRB DV. Otherwise, there are no substantial differences among the Design Variations for this criterion.

The City of San Jacinto is strongly opposed to the SJN DV as the City has been on record since 2007, acknowledging that the Base Case southerly alignment of the MCP project is preferred because that alignment is more compatible with the City's

General Plan land uses and has the support of the City Council, local land owners, and the development community. In addition to this support from stakeholders within the City of San Jacinto, the City's comment letter of March 21, 2013, also cited the lesser impact on the San Jacinto River floodplain as another reason for its support of the Base Case southerly alignment.

The County of Riverside expressed a preference for the SJRB DV.

11. Air Quality.⁵³ There are no differences among the Design Variations for these criteria.

12. Noise.⁵⁴ There are no differences among the Design Variations for these criteria.

Conclusion

This section summarizes the analysis of the SJRB DV and SJN DV compared to the Base Case Alternative 9 Modified alignment.

SJRB DV. Because the SJRB DV requires less bridge structure to construct than the Base Case design, this Design Variation results in a cost savings of \$30 million in limited public transportation funds. However, as discussed above, the SJRB DV does result in additional impacts under the following environmental criteria:

- **1.3 (Aquatic Ecosystem Functions and Values):** The SJRB DV has a higher sum (i.e., a worse ranking) of normalized rank scores with a score of 10.8, compared to the Base Case score of 9.2.
- **1.6 (Water Quality Construction Impacts):** The SJRB DV would have 3.5 acres (0.3 percent) more of soil disturbance compared to the Base Case.
- **3.1 (Sensitive Plant Communities Affected):** The SJRB DV would result in permanent impacts to 5.8 acres (28 percent) more of San Jacinto River alkali plant communities than the Base Case or the SJN DV. For the Base Case bridge, the 20.9 acres of permanent impacts include 2.2 acres due to fill, 8.5 acres due to shading, and 10.2 acres along the Ramona Expressway within existing fill; while for the SJRB DV, the 26.6 acres of permanent impacts include 10.6 acres due to fill, 4.8 acres due to shading, and 11.2 acres along the Ramona Expressway within existing fill. With regard to temporary construction impacts, the Base Case bridge results in 7.2 acres of impacts to San Jacinto River alkali plant communities compared to 3.5 acres of temporary construction impacts under the SJRB DV. As part of the MSHCP consistency determination process, RCTC has committed to mitigating permanent and temporary impacts to San Jacinto River alkali plant communities by acquiring (as well as restoring and/or enhancing) 35.0 acres of similar habitat within the vernal pool complex in Noncontiguous Habitat Block 7 of the MSHCP Criteria Area, since that area has similar soils and known sensitive plant locations, or within the Lakeview area.

- **5 (Effects on Western Riverside County MSHCP):** The SJRB DV would affect 1 to 2 acres (up to 1 percent) more of MSHCP Criteria Area than the Base Case. These slightly greater effects on the MSHCP Criteria Area are anticipated and allowed by the MSHCP since the MCP is a Covered Activity, and the SJRB DV is within the bounds of what was contemplated for the MCP project impacts of the MSHCP. The SJRB DV is consistent with the MSHCP (see MCP MSHCP Consistency Determination and Determination of Biological Equivalent or Superior Preservation [DBESP] report), and therefore impacts to the Criteria Area have been contemplated and mitigated for by the MSHCP.

While the SJRB DV has greater impacts under the four environmental criteria stated above, it does not result in additional impacts to waters of the U.S. or additional impacts to any other listed or special-status plant or animal species associated with this area. In addition, the County of Riverside has expressed a preference for this Design Variation because of the substantial cost savings, resulting in the ability for RCTC and the County to fund other needed transportation improvements in western Riverside County. Therefore, when considering the additional impacts to San Jacinto River alkali plant communities and the MSHCP Criteria Area and Conservation Area noted above (both of which are fully mitigated through RCTC's compliance with MSHCP) in comparison to the extra cost of \$30 million for the longer bridge (i.e., the Base Case design), the SJRB DV is a cost-effective Design Variation that is acceptable to the affected community and will meet the project purpose with minimal additional environmental impacts.

SJN DV. Although the SJN DV would cost \$80 million less than the Alternative 9 Modified Base Case design, the SJN DV is not acceptable to the City of San Jacinto, the local community directly affected by the SJN DV. Although the City of San Jacinto shows both the SJN DV and the more southerly Base Case MCP alignment on its General Plan Circulation Element map, the City of San Jacinto has been on record supporting the southerly Base Case MCP alignment as its preferred alignment since 2007 because of its greater compatibility with future land uses. Since that time, the City has been actively working with local property owners and developers to preserve land for the southerly Base Case MCP alignment, while looking to focus future land use entitlements and economic development in the northerly area. As noted in the City's comment letter on the RDEIR/SDEIS dated March 21, 2013, *"The southerly alignment, which the DEIR presents as the City's preferred alternative, has the support of the City Council, local land owners and the development community. Furthermore, it has less impact on the San Jacinto River floodplain and its alignment is almost entirely on vacant land."*

In addition to this local preference by the City of San Jacinto, the SJN DV has the following adverse effects under the following criteria:

- **II.2 (Technological Constraints):** The SJN DV does not meet Caltrans' design criteria for interchange spacing.
- **III.1.1 (Aquatic Resources):** Although the SJN DV impacts less acreage of federal jurisdictional waters, the waters that are impacted have a higher value than the federal

jurisdictional waters impacted by the southerly Base Case alignment. In addition, the SJN DV impacts slightly more area of State jurisdictional waters.

- **III.1.4 (Floodplains):** The SJN DV results in slightly greater floodplain impacts than the southerly Base Case alignment.
- **III.3 (Plant Communities):** The SJN DV results in 3.4 acres of permanent impacts to riparian habitat, compared to 2.4 acres under the southerly Base Case alignment.
- **III.9 (Land Use):** The SJN DV results in greater loss of access for existing and future land uses than the southerly Base Case alignment.

Although the \$80 million cost savings of the SJN DV is a desirable benefit (just as the \$30 million cost savings is for the SJRB DV), it is unacceptable to the affected community (the City of San Jacinto), and it also results in additional impacts that would not occur under the southerly Base Case alignment.

PRELIMINARY LEDPA DETERMINATION

Based on the above analysis, Alternative 9 Modified, with the SJRB DV and the Base Case southerly alignment through the City of San Jacinto, is recommended as the Preliminary LEDPA. With implementation of the mitigation proposed in the attached Draft Habitat Mitigation and Monitoring Plan, Alternative 9 Modified with the SJRB DV would not result in degradation to jurisdictional waters of the U.S.

Attachments

Figure 1 – MCP Build Alternatives

Figure 2 – Alternatives 4, 5, and 9 Modified in the City of Perris

Figure 3 – San Jacinto North Design Variation

San Jacinto River Bridge Base Case Exhibit

San Jacinto River Bridge Design Variation Exhibit

Table A: Detail Matrix of the Evaluation of the Mid County Parkway Build Alternatives

Table B: Detail Matrix of the Evaluation of Alternative 9 Modified Design Variations and the Section 404 No Action Alternative

Figures B-1 through B-16 (Maps highlighting differences between Alternative 9 Modified Base Case, SJRB DV, and SJN DV)

San Jacinto River Hydrology PowerPoint presentation

Section 404 No Federal Action Alternative Cost Estimate Details

Draft Habitat Mitigation and Monitoring Plan

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- 1 Sections 2.2, Alternatives Development Process (page 2-1); and 2.4, Alternatives (page 2-31), in the 2008 Draft EIR/Draft EIS
 - 2 Sections 2.2.1, Development of MCP Alternatives (page 2-6); 2.2.1.1, Development of the Modified MCP Alternatives (page 2-7); and 2.3, Project Alternatives (page 2-7) in the 2013 Recirculated Draft EIR/Supplemental Draft EIS
 - 3 Section 2.3, Project Alternatives (page 2-7), in the 2013 Recirculated Draft EIR/Supplemental Draft EIS
 - 4 These figures were generated for this LEDPA paper and will be included in the Final EIR/EIS.
 - 5 Section 2.3.4, No Build Alternatives (page 2-59) in the Recirculated Draft EIR/Supplemental Draft EIS
 - 6 Section 2.6, Alternatives Considered and Withdrawn from Further Study (page 2-67), in the Recirculated Draft EIR/Supplemental Draft EIS
 - 7 Figures 7-16 (Alternative 4 Modified), 7-30 (Alternative 5 Modified), and 7-44 (Alternative 9 Modified) in the *Mid County Parkway Traffic Technical Report* (February 3, 2012).
 - 8 Subsection titled "Population/Traffic Forecast" (page 1-17) in the Recirculated Draft EIR/Supplemental Draft EIS
 - 9 Subsections titled "Capacity Needs" (page 1-18), "Safety" (page 1-22), and "Operational" (page 1-26), in the Recirculated Draft EIR/Supplemental Draft EIS
 - 10 Section 2.3.2.1, Design (page 2-18), in the Recirculated Draft EIR/Supplemental Draft EIS
 - 11 Section 2.3.2.1, Design (page 2-18), in the Recirculated Draft EIR/Supplemental Draft EIS
 - 12 Section 2.3.2.2, Typical Sections (page 2-19), in the Recirculated Draft EIR/Supplemental Draft EIS
 - 13 Section 2.3, Project Alternatives (page 2-7), in the Recirculated Draft EIR/Supplemental Draft EIS
 - 14 Updated cost estimates (Jacobs 2013) to be included in the Final EIR/EIS.
 - 15 Refer to the environmental analyses in Chapter 3.0, Affected Environment, Environmental Consequences, and Avoidance, Minimization, and Mitigation Measures, in the Recirculated Draft EIR/Supplemental Draft EIS
 - 16 Updated calculations of impacts based on updated draft jurisdictional delineation (LSA 2013); the updated calculations will be included in the Final EIR/EIS.
 - 17 Riparian Ecosystem Integrity Assessment (provided as Appendix G in the *Supplement to the Natural Environment Study for the Mid County Parkway Project*, December 2011)
 - 18 The SAMP is no longer active per the USACE Los Angeles District website (<http://www.spl.usace.army.mil/Missions/Regulatory/ProjectsPrograms.aspx>, accessed December 4, 2013)
 - 19 Subsection titled "Floodplain Encroachment" (page 3.9-10), in the Recirculated Draft EIR/Supplemental Draft EIS
 - 20 Section 3.10.3.2, Temporary Impacts (page 3.10-35), in Section 3.10, Water Quality and Storm Water Runoff, in the Recirculated Draft EIR/Supplemental Draft EIS
 - 21 Sections 3.10.3.1, Permanent Impacts (page 3.10-17) and 3.10.3.2, Temporary Impacts (page 3.10-35), in Section 3.10, Water Quality and Storm Water Runoff, in the Recirculated Draft EIR/Supplemental Draft EIS
 - 22 Section 3.10.3.2, Temporary Impacts (page 3.10-35), in Section 3.10, Water Quality and Storm Water Runoff, in the Recirculated Draft EIR/Supplemental Draft EIS
 - 23 Page 3.10- 28 in Section 3.10.3.1, Permanent Impacts (page 3.10-17), in Section 3.10, Water Quality and Storm Water Runoff, in the Recirculated Draft EIR/Supplemental Draft EIS
 - 24 Table 3.21.B, Impacts to Threatened and Endangered Species (page 3.21-7) in Section 3.21, Threatened and Endangered Species, in the Recirculated Draft EIR/Supplemental Draft EIS
 - 25 Section 3.17, Plant Communities, in the Recirculated Draft EIR/Supplemental Draft EIS
 - 26 Subsection titled "Habitat Conservation Plan for the Stephens' Kangaroo Rat" (page 3.17-47) in Section 3.17, Natural Communities, in the Recirculated Draft EIR/Supplemental Draft EIS
 - 27 Draft MSHCP Consistency Determination and DBESP (Dudek, September 2013)
 - 28 Sections 4.0, Multiuse Prehistoric Site (page 4-1); 5.0, Sites P-33-19862, P-33-19863, P-33-19864, and P-33-19866 (page 5-1), and 7.0, Use of Nationwide Programmatic Section 4(f) Evaluation for the San Jacinto Wildlife Area (page 7-1) in Appendix B, Revised Draft Section 4(f) Evaluation, in the Recirculated Draft EIR/Supplemental Draft EIS
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- 29 Section 3.8.3.1, Permanent Impacts (page 3.8-14), in Section 3.8, Cultural Resources, in the Recirculated Draft EIR/Supplemental Draft EIS
- 30 Tables 3.4.F, Full Parcel Acquisitions and Displacements by Alternative (page 3.4-34), and 3.4.G, Number of Displaced Employees by Alternative and Jurisdiction (page 3.4-36), in Section 3.4, Community Impacts, in the Recirculated Draft EIR/Supplemental Draft EIS
- 31 Subsection titled “City and County General Plans” (page 3.1-32), in Section 3.1, Land Use, in the Recirculated Draft EIR/Supplemental Draft EIS
- 32 Table 3.3.C, Impacts to Farmland per Alternative (acres) (page 3.3-9), in Section 3.3, Farmlands/Timberlands, in the Recirculated Draft EIR/Supplemental Draft EIS
- 33 Subsection titled “Temporary Impacts” (page 3.4-29), in Section 3.4, Community Impacts, in the Recirculated Draft EIR/Supplemental Draft EIS
- 34 Subsections titled “Perris Area (Mead Valley)/City of Perris” (pages 3.4-24, 3.4-27, and 3.4-29, respectively, for Alternatives 4, 5, and 9 Modified), in Section 3.4, Community Impacts, in the Recirculated Draft EIR/Supplemental Draft EIS
- 35 Tables 3.14.I, Daily PM_{2.5} Emissions (lbs/day) (page 3.14-22); 3.14.J, Daily PM₁₀ Emissions (lbs/day) (page 3.14-22); 3.14.S, MSAT Emissions for the MCP Study Area (lbs/day) (page 3.14-34); 3.14.T, 2008 Regional Vehicle Emissions (lbs/day) (page 3.14-36); 3.14.U, 2020 Regional Vehicle Emissions (lbs/day) (page 3.14-37); 3.14.V, 2040 Regional Vehicle Emissions (lbs/day); and 3.14.W, Maximum Project Construction Emissions (lbs/day) (page 3.14-42)
- 36 Subsection titled “Noise Abatement Consideration” (page 3.15-70), and Table 3.15.AB, Summary of Preliminary Recommended Noise Barriers, (page 3.15-96), in Section 3.15, Noise, in the Recirculated Draft EIR/Supplemental Draft EIS
- 37 Figures 7-16 (Alternative 4 Modified), 7-30 (Alternative 5 Modified), and 7-44 (Alternative 9 Modified) in the *Mid County Parkway Traffic Technical Report* (February 3, 2012); subsections titled “Population/Traffic Forecast” (page 1-17), “Capacity Needs” (page 1-18), “Safety” (page 1-22), and “Operational” (page 1-26), in the Recirculated Draft EIR/Supplemental Draft EIS; Sections 2.3.2.1, Design (page 2-18), 2.3.2.2, Typical Sections (page 2-19); and 2.3, Project Alternatives (page 2-7), in the Recirculated Draft EIR/Supplemental Draft EIS
- 38 Updated cost estimates (Jacobs 2013) to be included in the Final EIR/EIS.
- 39 Refer to the environmental analyses in Chapter 3.0, Affected Environment, Environmental Consequences, and Avoidance, Minimization, and Mitigation Measures, including Section 3.4, Community Impacts, in the Recirculated Draft EIR/Supplemental Draft EIS
- 40 Updated calculations of impacts based on updated draft jurisdictional delineation (LSA 2013); the updated calculations will be included in the Final EIR/EIS.
- 41 Riparian Ecosystem Integrity Assessment (provided as Appendix G in the *Supplement to the Natural Environment Study for the Mid County Parkway Project*, December 2011)
- 42 The SAMP is no longer active per the USACE Los Angeles District website (<http://www.spl.usace.army.mil/Missions/Regulatory/ProjectsPrograms.aspx>, accessed December 4, 2013)
- 43 Subsection titled “Floodplain Encroachment” (page 3.9-10), in the Recirculated Draft EIR/Supplemental Draft EIS
- 44 Section 3.10.3.2, Temporary Impacts (page 3.10-35), in Section 3.10, Water Quality and Storm Water Runoff, in the Recirculated Draft EIR/Supplemental Draft EIS
- 45 Sections 3.10.3.2, Temporary Impacts (page 3.10-35), Section 3.10.3.1, Permanent Impacts (page 3.10-28), in Section 3.10, Water Quality and Storm Water Runoff, in the Recirculated Draft EIR/Supplemental Draft EIS
- 46 Table 3.21.B, Impacts to Threatened and Endangered Species (page 3.21-7) in Section 3.21, Threatened and Endangered Species, in the Recirculated Draft EIR/Supplemental Draft EIS
- 47 Section 3.17, Plant Communities, in the Recirculated Draft EIR/Supplemental Draft EIS
- 48 Subsection titled “Habitat Conservation Plan for the Stephens’ Kangaroo Rat” (page 3.17-47) in Section 3.17, Natural Communities, in the Recirculated Draft EIR/Supplemental Draft EIS
- 49 Draft MSHCP Consistency Determination and DBESP (Dudek, September 2013)
- 50 Sections 4.0, Multiuse Prehistoric Site (page 4-1); 5.0, Sites P-33-19862, P-33-19863, P-33-19864, and P-33-19866 (page 5-1), and 7.0, Use of Nationwide Programmatic Section 4(f) Evaluation for the San Jacinto
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Wildlife Area (page 7-1) in Appendix B, Revised Draft Section 4(f) Evaluation; Section 3.8.3.1, Permanent Impacts (page 3.8-14), in Section 3.8, Cultural Resources, in the Recirculated Draft EIR/Supplemental Draft EIS

- 51 Access: Appendix I, Supplemental Chapter 2 Attachments, Attachment G, Local Circulation Modifications, in the Recirculated Draft EIR/Supplemental Draft EIS; General Plan and other consistency: subsection titled “City and County General Plans” (page 3.1-32), in Section 3.1, Land Use; and Farmland: Table 3.3.C, Impacts to Farmland per Alternative (acres) (page 3.3-9), in Section 3.3, Farmlands/Timberlands, in the Recirculated Draft EIR/Supplemental Draft EIS
- 52 Displacements: Tables 3.4.F, Full Parcel Acquisitions and Displacements by Alternative (page 3.4-34), and 3.4.G, Number of Displaced Employees by Alternative and Jurisdiction (page 3.4-36), in Section 3.4, Community Impacts; travel pattern disruptions: subsections titled “Temporary Impacts” (page 3.4-29), and “permanent Impacts” (page 3.4-50), in Section 3.4, Community Impacts; Environmental Justice: Section 3.4.3, Environmental Justice (page 3.4-41), in Section 3.4, Community Impacts; community service disruptions: Section 3.5.2, Environmental Consequences (page 3.5-3), in Section 3.5, Utilities/Emergency Services; and schools: subsections titled “Perris Area (Mead Valley)/City of Perris” (pages 3.4-24, 3.4-27, and 3.4-29, respectively, for Alternatives 4, 5, and 9 Modified), in Section 3.4, Community Impacts, in the Recirculated Draft EIR/Supplemental Draft EIS
- 53 Tables 3.14.I, Daily PM_{2.5} Emissions (lbs/day) (page 3.14-22); 3.14.J, Daily PM₁₀ Emissions (lbs/day) (page 3.14-22); 3.14.S, MSAT Emissions for the MCP Study Area (lbs/day) (page 3.14-34); 3.14.T, 2008 Regional Vehicle Emissions (lbs/day) (page 3.14-36); 3.14.U, 2020 Regional Vehicle Emissions (lbs/day) (page 3.14-37); 3.14.V, 2040 Regional Vehicle Emissions (lbs/day); and 3.14.W, Maximum Project Construction Emissions (lbs/day) (page 3.14-42)
- 54 Section 3.15.3.1, Permanent Impacts (page 3.15-67); Tables 3.15.Q through 3.15.X (starting on page 3.15-37); the subsection titled “Noise Abatement Consideration” (page 3.15-70); and Table 3.15.AB, Summary of Preliminary Recommended Noise Barriers, (page 3.15-96), in Section 3.15, Noise, in the Recirculated Draft EIR/Supplemental Draft EIS



LEGEND

	MCP Facility, Ramps, and Local Roadway Improvements		Grading Limits: Cut
	MCP Right of Way		Grading Limits: Fill
	Structures		

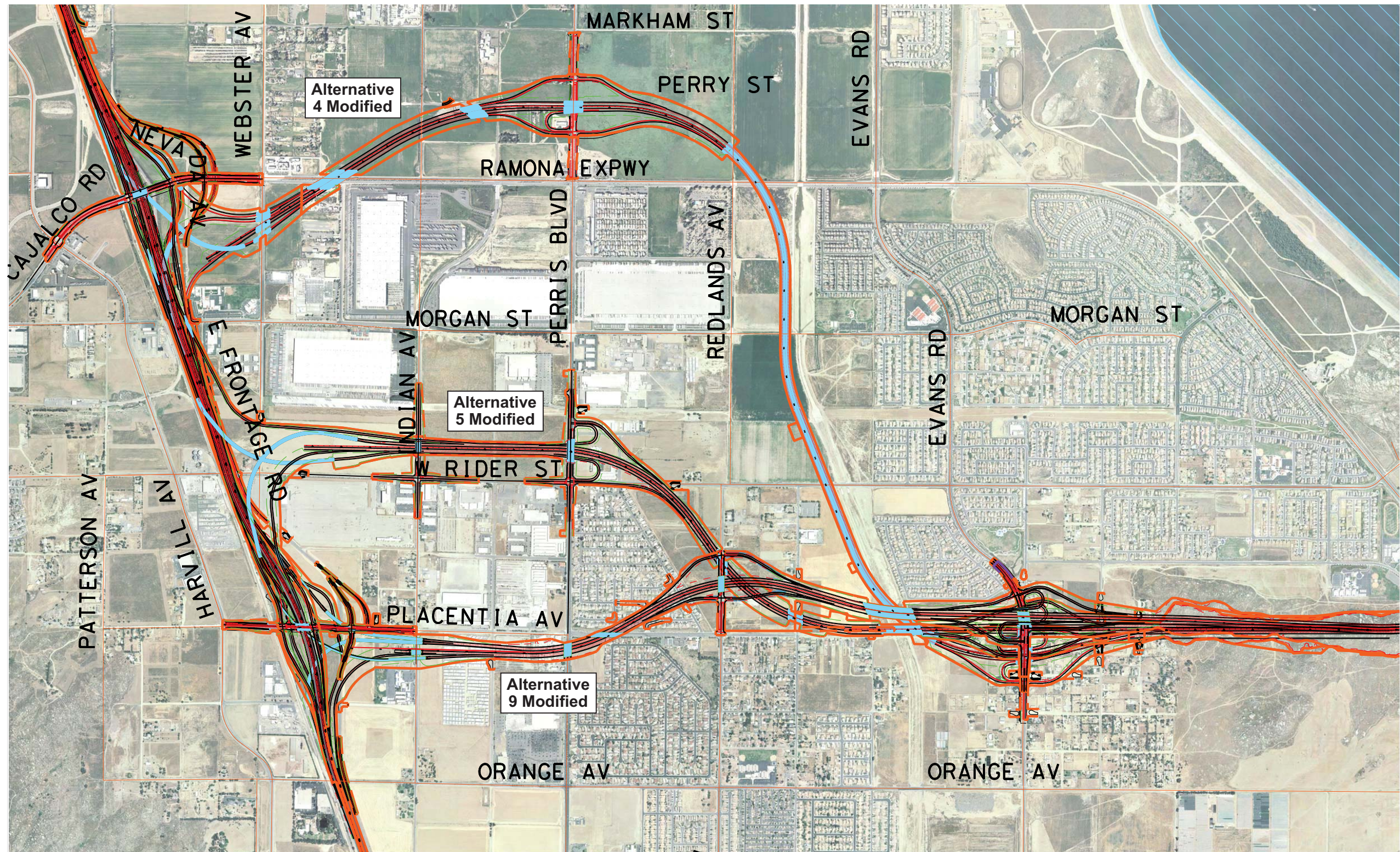
SOURCE: Jacobs Engineering, 2013

Figure 1

Build Alternatives

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34/3
EA 08-0F3200 (PN 0800000125)





LEGEND

- MCP Facility, Ramps, and Local Roadway Improvements
- MCP Right of Way
- Structures
- - - Grading Limits: Cut
- - - Grading Limits: Fill

SOURCE: Jacobs Engineering, 2013



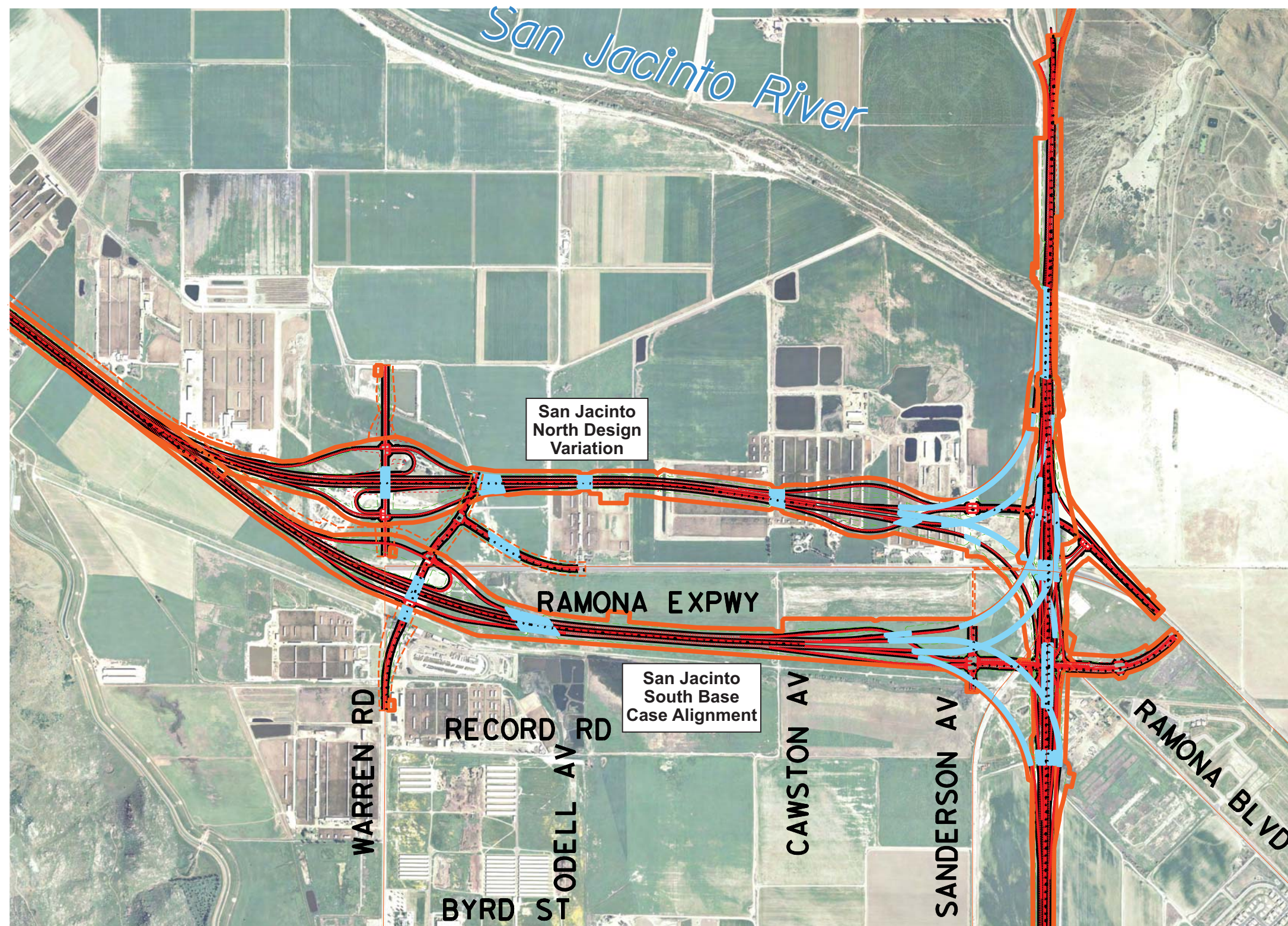
0 900 1800 Feet

Figure 2

Alternatives 4, 5, and 9 Modified in City of Perris

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34/3
EA 08-0F3200 (PN 0800000125)





LEGEND

- MCP Facility, Ramps, and Local Roadway Improvements
- MCP Right of Way
- Structures
- Grading Limits: Cut
- Grading Limits: Fill

SOURCE: Jacobs Engineering, 2013



0 800 1600 Feet



Figure 3

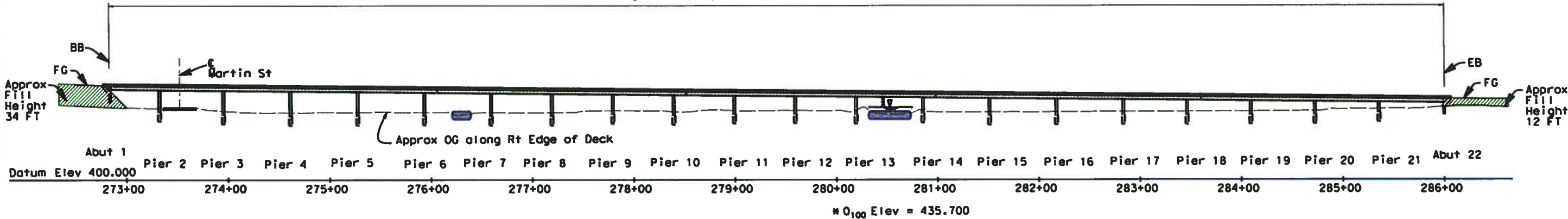
Base Case

4321 FT



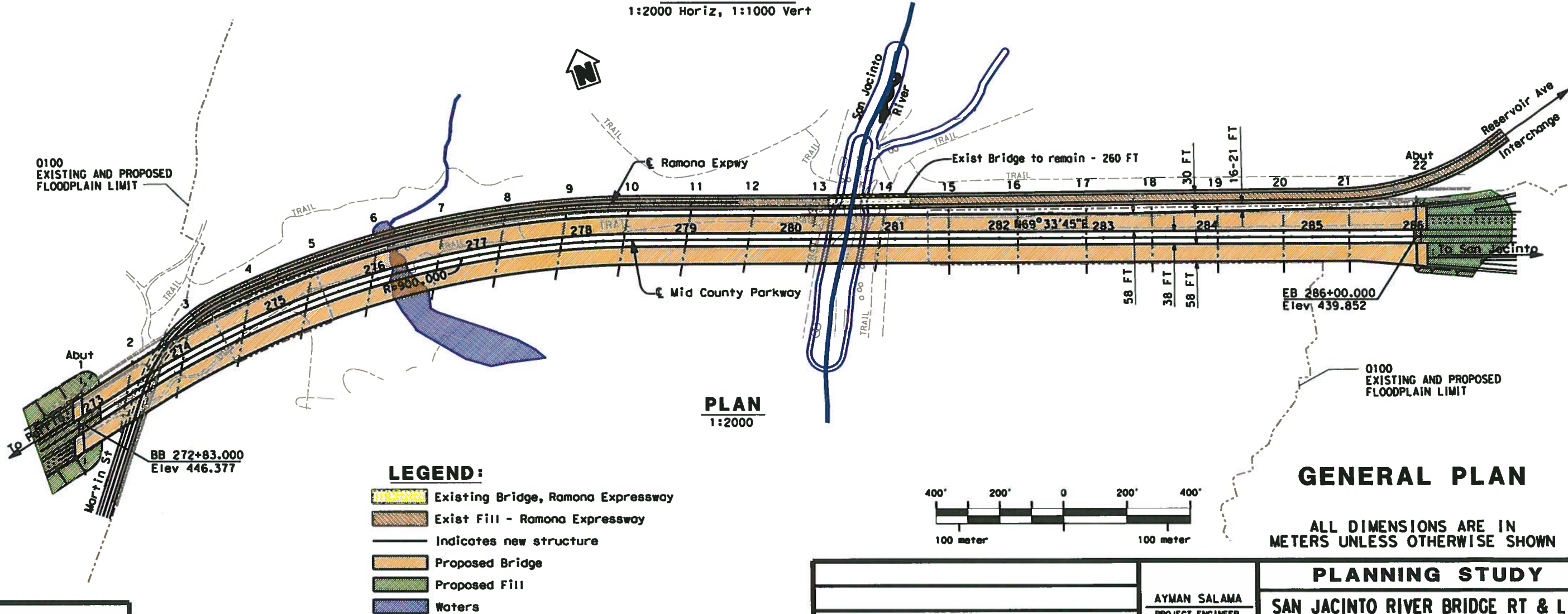
DIST	COUNTY	ROUTE	1/1000000 POST TOTAL PROJECT
08	RIV	MCP	
RIVERSIDE COUNTY TRANSPORTATION COMMISSION 4000 LEMON STREET, 3rd Floor P.O. Box 12000 RIVERSIDE, CA 92502-2200			

Total Length of Bridge Along ϵ Mid County Parkway = 4321 FT



ELEVATION

1:2000 Horiz, 1:1000 Vert



GENERAL PLAN

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLANNING STUDY

SAN JACINTO RIVER BRIDGE RT & LT

BRIDGE NO. CU
SCALE: As Noted EA 08-227-of3200

AYMAN SALAMA
PROJECT ENGINEER

FILE => REQUEST

Base Case

TIME PLOTTED => \$TIME
DATE PLOTTED => \$DATE
USERNAME => \$USER

SERNAME => \$USER	DATE PLOTTED => \$DATE	TIME PLOTTED => \$TIME
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Table A: Detail Matrix of the Evaluation of the Mid County Parkway Build Alternatives

Criteria	Values (Metrics)	Alternative 4 Modified Base Case Design	Alternative 5 Modified Base Case Design	Alternative 9 Modified Base Case Design
I. PURPOSE AND NEED				
1. Provide capacity for 2040^(a)	Y/N	Yes	Yes	Yes
2. Serve regional movement of people and goods^(b)	Y/N	Yes	Yes	Yes
3. Provide roadway geometrics to meet State Highway design standards^(c)	Y/N	Yes	Yes	Yes
4. Provide limited access facility^(d)	Number of Access Points	8	8	8
5. Accommodate STAA trucks^(e)	Y/N	Yes	Yes	Yes
6. Provide a facility that is compatible with a future multimodal transportation system^(f)	Y/N	Yes	Yes	Yes
7. Provide an effective and efficient connection between and through San Jacinto and Perris^(g)	Y/N	Yes	Yes	Yes
II. REASONABLE AND PRACTICABLE				
1. COST^(h)				
1.1 Construction¹	U.S. Dollars	\$1.79 Billion	\$1.40 Billion	\$ 1.31 Billion
1.2 ROW Acquisition	U.S. Dollars	\$0.20 Billion	\$0.21 Billion	\$0.19 Billion
1.3 Mitigation²	U.S. Dollars	\$0.11 Billion	\$0.11 Billion	\$0.11 Billion
1.4 Total (Construction, ROW, Mitigation)	U.S. Dollars	\$2.10 Billion	\$1.72 Billion	\$1.61 Billion
1.5 Engineering/Design	U.S. Dollars	\$0.42 Billion	\$0.34 Billion	\$0.32 Billion
2. TECHNOLOGICAL CONSTRAINTS				
2.1 Safety (Non-Highway)	Y/N	No	No	No
2.2 Engineering Issues	Y/N	No	No	No
3. LOGISTICAL CONSTRAINTS				
3.1 Logistical Constraints	Y/N	No	No	No
4. OTHER NEPA/404 CRITERIA				
4.1 Unacceptable Adverse Social, Economic, or Environmental Impacts⁽ⁱ⁾	Y/N	No	No	No
4.2 Serious Community Disruption^(j)	Y/N	No	No	No
III. ENVIRONMENTAL				
1. WATER RESOURCES/AQUATIC ECOSYSTEM				
1.1 USACE Jurisdictional Waters/Wetlands (Impacts to Waters of the U.S.)^(k)	Acreage	• 5.34 acres of permanent impacts (1.01 acre of wetlands; 4.33 acres of non-wetland waters)	• 5.15 acres of permanent impacts (0.61 acre of wetlands; 4.54 acres of non-wetland waters)	• 5.01 acres of permanent impacts (0.64 acre of wetlands; 4.37 acres of non-wetland waters)
		• 7.72 acres of temporary impacts (4.94 acres of wetlands; 2.78 acres of non-wetland waters)	• 6.15 acres of temporary impacts (4.26 acres of wetlands; 1.89 acres of non-wetland waters)	• 6.91 acres of temporary impacts (4.79 acres of wetlands; 2.12 acres of non-wetland waters)
1.1A California Department of Fish and Wildlife Jurisdictional Area^(l)	Acreage	• 8.34 acres of permanent impacts	• 7.31 acres of permanent impacts	• 7.50 total acres of permanent impacts
		• 4.49 acres of temporary impacts	• 3.95 acres of temporary impacts	• 4.30 total acres of temporary impacts
1.2 Functions/Values Affected (Hydrology Impacts)^(m)	Sum of normalized rank scores for all criteria for alternatives corridor alignments from ERDC Conditions Assessment (lower number = fewer impacts)	12.1	8.9	9.2

Table A: Detail Matrix of the Evaluation of the Mid County Parkway Build Alternatives

Criteria	Values (Metrics)	Alternative 4 Modified Base Case Design	Alternative 5 Modified Base Case Design	Alternative 9 Modified Base Case Design
1.3 Consistent with SAMP Goals ⁽ⁿ⁾	N/A	N/A	N/A	N/A
1.4 Floodplain Impacts ^(o)	Floodplain Affected: Transverse Encroachment (TE) Longitudinal Encroachment (LE)	• Perris Valley Storm Drain: LE	• Perris Valley Storm Drain: TE	• Perris Valley Storm Drain: TE
		• San Jacinto River at Lakeview: TE	• San Jacinto River at Lakeview: TE	• San Jacinto River at Lakeview: TE
		• San Jacinto River at SR-79: LE	• San Jacinto River at SR-79: LE	• San Jacinto River at SR-79: LE
1.5 Beneficial Uses Affected ^(p)	Beneficial Use	With implementation of BMPs, there will be no adverse effects to Beneficial Uses.	With implementation of BMPs, there will be no adverse effects to Beneficial Uses.	With implementation of BMPs, there will be no adverse effects to Beneficial Uses.
1.6 Water Quality Construction Impacts ^(q)	No. of Stream Crossings; Acres of soil disturbance	• 13 stream crossings	• 11 stream crossings	• 11 stream crossings
		• 1,153 acres of maximum disturbed soil	• 1,145 acres of maximum disturbed soil	• 1,091 acres of maximum disturbed soil
1.7 Water Quality Permanent Impacts ^(r)	Acres of new pavement; Acres of steep slopes; Increase/Decrease in pollutant loads	• 525 acres of new pavement	• 516.9 acres of new pavement	• 479.5 acres of new pavement
		• 6 acres of steep slopes	• 6 acres of steep slopes	• 6 acres of steep slopes
		• Decrease annual loading with implemented BMPs	• Decrease annual loading with implemented BMPs	• Decrease annual loading with implemented BMPs
2. THREATENED AND ENDANGERED SPECIES ^(s)				
2.1 Species/Populations Affected (Wildlife)	Acreage	• 3.7 acres of least Bell’s vireo occupied habitat	• 3.7 acres of least Bell’s vireo habitat	• 3.7 acres of least Bell’s vireo habitat
		• 1.7 acres of occupied SBKR habitat	• 1.7 acres of occupied SBKR habitat	• 1.7 acres of occupied SBKR habitat
		• 1.5 acres of final SBKR critical habitat (2002)	• 1.5 acres of reinstated SBKR critical habitat (2002)	• 1.5 acres of reinstated SBKR critical habitat (2002)
2.2 Species/Populations Affected (Plants)	Acreage (temporary and permanent impacts)	• 0.36 acre of occupied San Jacinto valley crownscale habitat	• 0.36 acre of occupied San Jacinto valley crownscale habitat	• 0.36 acre of occupied San Jacinto valley crownscale habitat
		• 1.09 acres of occupied spreading navarretia habitat and final critical habitat (2008) with primary constituent elements	• 1.09 acres of occupied spreading navarretia habitat and final critical habitat (2008) with primary constituent elements	• 1.09 acres of occupied spreading navarretia habitat and final critical habitat (2008) with primary constituent elements
3. PLANT COMMUNITIES ^(t)				
3.1 Sensitive Plant Communities Affected	Acreage (temporary and permanent impacts)	• 92.5 acres of Riversidean upland sage scrub	• 89.4 acres of Riversidean upland sage scrub	• 87.0 acres of Riversidean upland sage scrub
		• 27.8 total acres of San Jacinto River alkali communities (20.6 acres permanent, 7.2 acres temporary)	• 27.8 total acres of San Jacinto River alkali communities (20.6 acres permanent, 7.2 acres temporary)	• 27.8 total acres of San Jacinto River alkali communities (20.6 acres permanent, 7.2 acres temporary)
		• 5.4 total acres of riparian habitat (2.7 acres permanent, 2.7 acres temporary)	• 5.3 acres of riparian habitat (2.6 acres permanent, 2.7 acres temporary)	• 5.4 acres of riparian habitat (2.7 acres permanent, 2.7 acres temporary)
4. EFFECTS ON EXISTING HCPS				
4.1 SKR HCP Reserves ^(u)	Require Acquisition of Reserve Land (Y/N)	No	No	No
5. WESTERN RIVERSIDE COUNTY MSHCP				
5.1 MSHCP Consistency Determination	Consistency Determination Required (Y/N)	Yes	Yes	Yes
5.2 Conservation Goals ^(v)	Acreage Affected of MSHCP Criteria Area, Public/Quasi-Public Lands, and MSHCP Conservation Area (Cores/Linkages) (temporary and permanent impacts)	• 192 acres affected of Criteria Area	• 192 acres affected of Criteria Area	• 192 acres affected of Criteria Area
		• 3.4 acres acquired of PQP lands	• 3.4 acres acquired of PQP lands	• 3.4 acres acquired of PQP lands
		• 7.3 acres affected of PQP lands	• 4.3 acres affected of PQP lands	• 3.8 acres affected of PQP lands
		• 62–68 acres affected of Conservation Area	• 62–68 acres affected of Conservation Area	• 62–68 acres affected of Conservation Area
5.3 Mitigation Acreage Required	Acreage	N/A	N/A	N/A
5.4 Mitigation Acreage Available	Y/N	N/A	N/A	N/A

Table A: Detail Matrix of the Evaluation of the Mid County Parkway Build Alternatives

Criteria	Values (Metrics)	Alternative 4 Modified Base Case Design	Alternative 5 Modified Base Case Design	Alternative 9 Modified Base Case Design
6. SECTION 4(f) RESOURCES^(w)				
6.1 Section 4(f) Resources - direct use	Total Section 4(f) Resources, Acreage, and Cultural Sites	• 3.4 acres of the San Jacinto Wildlife Area	• 3.4 acres of the San Jacinto Wildlife Area	• 3.4 acres of the San Jacinto Wildlife Area
		• 5.18 acres of P-33-16598 (CA RIV 8712) Multiuse Prehistoric Site and avoidance of P-33-3653 with an ESA.	• 5.18 acres of P-33-16598 (CA RIV 8712) Multiuse Prehistoric Site and avoidance of P-33-3653 with an ESA.	• 5.18 acres of P-33-16598 (CA RIV 8712) Multiuse Prehistoric Site and avoidance of P-33-3653 with an ESA.
		• Four archaeological sites assumed to be eligible for the National Register.	• Four archaeological sites assumed to be eligible for the National Register.	• Four archaeological sites assumed to be eligible for the National Register.
6.2 Section 4(f) Resources - constructive use	Number of Section 4(f) Resources	None	None	None
7. SECTION 6(f) LANDS				
7.1 Section 6(f) Lands Affected	Acreage	None	None	None
8. CULTURAL RESOURCES^(x)				
8.1 Prehistoric archaeological resources	Number of Sites	5 sites	5 sites	5 sites
8.2 Historic archaeological/architectural resources	Number of Sites	0 sites	0 sites	0 sites
8.3 Sacred Sites	Number of Sites	1 site	1 site	1 site
9. LAND USE IMPACTS				
9.1a Access Impacts (Business)^(y)	Ranking 1-3 (1 Least Impact, 3 Worst Impact)	1	3	2
9.1b Access Impacts (Residential)^(y)	Ranking 1-3 (1 Least Impact, 3 Worst Impact)	1	2	3
9.2a Cities of San Jacinto and Perris^(z)	Inconsistencies	• Inconsistent with designated roadways and land uses for the City of Perris General Plan because it does not follow the original CETAP alignment.	• Inconsistent with designated roadways and land uses for the City of Perris General Plan because it does not follow the original CETAP alignment.	• Inconsistent with designated roadways and land uses for the City of Perris General Plan because it does not follow the original CETAP alignment.
		• Amendments to the San Jacinto General Plan required to reflect either SJN or SJS DV alignment at east end of MCP.	• Amendments to the San Jacinto General Plan required to reflect either SJN or SJS DV alignment at east end of MCP.	• Amendments to the San Jacinto General Plan required to reflect either SJN or SJS DV alignment at east end of MCP.
9.2b County of Riverside^(aa)	Inconsistencies	• Inconsistent with Land Use Policies LU 16.2 and 16.4, which protect agricultural lands.	• Inconsistent with Land Use Policies LU 16.2 and 16.4, which protect agricultural lands.	• Inconsistent with Land Use Policies LU 16.2 and 16.4, which protect agricultural lands.
9.3 Farmland Impacts^(bb)	Acreage	Prime Farmland 212.7 acres, Farmland of State Importance 164.7 acres, Unique Farmland 47.5 acres, Farmland of Local Importance 601.0 acres, and Grazing Land 81.45 acres. (Total: 1,107.3 acres)	Prime Farmland 250.8 acres, Farmland of State Importance 149.9 acres, Unique Farmland 47.5 acres, Farmland of Local Importance 538.0 acres, and Grazing Land 75.72 acres. (Total: 1,061.9 acres)	Prime Farmland 191.0 acres, Farmland of State Importance 149.9 acres, Unique Farmland 47.5 acres, Farmland of Local Importance 578.6 acres, and Grazing Land 74.87 acres. (Total: 1,041.8 acres)
10. SOCIOECONOMIC/COMMUNITY IMPACTS				
10.1 Business Displacements^(cc)	Property acquisitions & employees displaced	• 91 non-residential property acquisitions	• 159 non-residential property acquisitions	• 103 non-residential property acquisitions
		• 68 businesses displaced	• 90 businesses displaced	• 37 businesses displaced
		• 350 employees potentially displaced	• 1,129 employees potentially displaced	• 188 employees potentially displaced
10.2 Residential Displacements^(dd)	Property acquisitions & occupants displaced	• 48 residential property acquisitions	• 36 residential property acquisitions	• 102 residential property acquisitions
		• 426 occupants displaced	• 373 occupants displaced	• 659 occupants displaced
10.3 Travel Pattern Disruptions^(ee)	Ranking 1-3 (1 Least Impact, 3 Worst Impacts)	1	3	2

Table A: Detail Matrix of the Evaluation of the Mid County Parkway Build Alternatives

Criteria	Values (Metrics)	Alternative 4 Modified Base Case Design	Alternative 5 Modified Base Case Design	Alternative 9 Modified Base Case Design
10.4 Environmental Justice Concerns ^(ff)	Impacts to minority/low-income populations	<ul style="list-style-type: none">Does not result in disproportionate impacts to environmental justice populations	<ul style="list-style-type: none">Does result in disproportionate impacts to environmental justice populations	<ul style="list-style-type: none">Does not result in disproportionate impacts to environmental justice populations
10.5 Community Service Disruptions (EMS, fire, police) ^(gg)	Property acquisitions	No	No	No
	Y/N			
10.6 Neighborhood/Community Impacts ^(hh)	Y/N	Yes	Yes	Yes
10.7 Schools ⁽ⁱⁱ⁾	Direct Impacts	<ul style="list-style-type: none">Direct impacts to the portable classrooms at Val Verde High School and the Val Verde Unified School District Administrative and Facilities Operation Building (City of Perris).	<ul style="list-style-type: none">Direct impacts to the portable classrooms at Val Verde High School and the Val Verde Unified School District Administrative and Facilities Operation Building (City of Perris).	<ul style="list-style-type: none">No direct impact to schools.
10.8 Support by local jurisdictions, community groups, and public	Support/Opposition	<ul style="list-style-type: none">City of San Jacinto opposes the SJN DVRiverside County prefers the SJRB DV over the Base Case	<ul style="list-style-type: none">City of San Jacinto opposes the SJN DVRiverside County prefers the SJRB DV over the Base Case	<ul style="list-style-type: none">City of Perris identified Alternative 9 as its locally preferred alternativeCity of San Jacinto opposes the SJN DVRiverside County prefers the SJRB DV over the Base Case
11. AIR QUALITY IMPACTS ^(jj)				
11.1 Criteria Pollutant Emissions in the MCP Region	Emissions in lbs/day	<ul style="list-style-type: none">201,720 lbs/day of CO	<ul style="list-style-type: none">201,720 lbs/day of CO	<ul style="list-style-type: none">201,914 lbs/day of CO
		<ul style="list-style-type: none">11,057 lbs/day of ROG	<ul style="list-style-type: none">11,056 lbs/day of ROG	<ul style="list-style-type: none">11,066 lbs/day of ROG
		<ul style="list-style-type: none">52,327 lbs/day of NO_x	<ul style="list-style-type: none">52,323 lbs/day of NO_x	<ul style="list-style-type: none">52,365 lbs/day of NO_x
		<ul style="list-style-type: none">1,200 ton/day of SO_x	<ul style="list-style-type: none">1,200 ton/day of SO_x	<ul style="list-style-type: none">1,201 ton/day of SO_x
		<ul style="list-style-type: none">11,623 lbs/day of PM₁₀	<ul style="list-style-type: none">11,623 lbs/day of PM₁₀	<ul style="list-style-type: none">11,633 lbs/day of PM₁₀
		<ul style="list-style-type: none">7,301 lbs/day of PM_{2.5}	<ul style="list-style-type: none">7,300 lbs/day of PM_{2.5}	<ul style="list-style-type: none">7,306 lbs/day of PM_{2.5}
		<ul style="list-style-type: none">126,057,775 lbs/day of CO₂	<ul style="list-style-type: none">126,043,848 lbs/day of CO₂	<ul style="list-style-type: none">126,150,645 lbs/day of CO₂
11.2 Exceeds NAAQS Emission Standards	Y/N	No	No	No
12. NOISE IMPACTS				
12.1 Sensitive Receptors Affected ^(kk)	Number of Modeled Receptors Affected	<ul style="list-style-type: none">Of the 337 modeled receptors, 73 receptors approach or exceed the 67 dBA L_{eq} NAC and 133 receptors would experience a substantial increase in noise of 12 dB or more.	<ul style="list-style-type: none">Of the 358 modeled receptors, 69 receptors approach or exceed the 67 dBA L_{eq} NAC and 151 receptors would experience a substantial increase in noise of 12 dB or more.	<ul style="list-style-type: none">Of the 355 modeled receptors, 66 receptors approach or exceed the 67 dBA L_{eq} NAC and 150 receptors would experience a substantial increase in noise of 12 dB or more.
12.2 Amount of Mitigation Feasible ^(ll)	Number and Length of Sound Barriers	<ul style="list-style-type: none">4 sound barriers	<ul style="list-style-type: none">6 sound barriers	<ul style="list-style-type: none">6 sound barriers
		<ul style="list-style-type: none">19,872 linear feet	<ul style="list-style-type: none">18,160 linear feet	<ul style="list-style-type: none">21,095 linear feet

¹ Construction cost does not include mitigation costs for each alternative.

² Environmental Mitigation Costs include the costs to purchase acreage for mitigation, wildlife undercrossing, and the San Jacinto River Bridge in the Lakeview area.

(a) Figures 7-16 (Alternative 4 Modified), 7-30 (Alternative 5 Modified), and 7-44 (Alternative 9 Modified) in the *Mid County Parkway Traffic Technical Report* (February 3, 2012)

(b) Subsection titled “Population/Traffic Forecast” (page 1-17) in the Recirculated Draft EIR/Supplemental Draft EIS

(c) Subsections titled “Capacity Needs” (page 1-18), “Safety” (page 1-22), and “Operational” (page 1-26), in the Recirculated Draft EIR/Supplemental Draft EIS

(d) Section 2.3.2.1, Design (page 2-18), in the Recirculated Draft EIR/Supplemental Draft EIS

(e) Section 2.3.2.1, Design (page 2-18), in the Recirculated Draft EIR/Supplemental Draft EIS

(f) Section 2.3.2.2, Typical Sections (page 2-19), in the Recirculated Draft EIR/Supplemental Draft EIS

(g) Section 2.3, Project Alternatives (page 2-7), in the Recirculated Draft EIR/Supplemental Draft EIS

(h) Updated cost estimates (Jacobs, 2013) to be included in Final Project Report and Final EIR/EIS

(i) Refer to the environmental analyses in Chapter 3.0, Affected Environment, Environmental Consequences, and Avoidance, Minimization, and Mitigation Measures, in the Recirculated Draft EIR/Supplemental Draft EIS

(j) Refer to Section 3.4, Community Impacts, in the Recirculated Draft EIR/Supplemental Draft EIS

(k) Updated calculations of impacts based on updated draft jurisdictional delineation (LSA 2013). Updated calculations to be included in Final EIR/EIS.

(l) Updated calculations of impacts based on updated draft jurisdictional delineation (LSA 2013). Updated calculations to be included in Final EIR/EIS.

(m) Riparian Ecosystem Integrity Assessment (provided as Appendix G in the *Supplement to the Natural Environment Study for the Mid County Parkway Project*, December 2011)

(n) SAMP is no longer active per USACE/Los Angeles District website (<http://www.spl.usace.army.mil/Missions/Regulatory/ProjectsPrograms.aspx>, accessed December 4, 2013)

(o) Subsection titled “Floodplain Encroachment” (page 3.9-10), in the Recirculated Draft EIR/Supplemental Draft EIS

(p) Section 3.10.3.2, Temporary Impacts (page 3.10-35), in Section 3.10, Water Quality and Storm Water Runoff, in the Recirculated Draft EIR/Supplemental Draft EIS

(q) Section 3.10.3.2, Temporary Impacts (page 3.10-35), in Section 3.10, Water Quality and Storm Water Runoff, in the Recirculated Draft EIR/Supplemental Draft EIS

Table A: Detail Matrix of the Evaluation of the Mid County Parkway Build Alternatives

Criteria	Values (Metrics)	Alternative 4 Modified Base Case Design	Alternative 5 Modified Base Case Design	Alternative 9 Modified Base Case Design
(r) Page 3.10- 28 in Section 3.10.3.1, Permanent Impacts (page 3.10-17), in Section 3.10, Water Quality and Storm Water Runoff, in the Recirculated Draft EIR/Supplemental Draft EIS				
(s) Table 3.21.B, Impacts to Threatened and Endangered Species (page 3.21-7) in Section 3.21, Threatened and Endangered Species, in the Recirculated Draft EIR/Supplemental Draft EIS				
(t) Updated calculations based on revised design and will be included in Final EIR/EIS				
(u) Subsection titled “Habitat Conservation Plan for the Stephens’ Kangaroo Rat” (page 3.17-47) in Section 3.17, Natural Communities, in the Recirculated Draft EIR/Supplemental Draft EIS				
(v) Draft MSHCP Consistency Analysis and DBESP (Dudek, September 2013)				
(w) Sections 4.0, Multiuse Prehistoric Site (page 4-1); 5.0, Sites P-33-19862, P-33-19863, P-33-19864, and P-33-19866 (page 5-1), and 7.0, Use of Nationwide Programmatic Section 4(f) Evaluation for the San Jacinto Wildlife Area (page 7-1) in Appendix B, Revised Draft Section 4(f) Evaluation, in the Recirculated Draft EIR/Supplemental EIS				
(x) Section 3.8.3.1, Permanent Impacts (page 3.8-14), in Section 3.8, Cultural Resources, in the Recirculated Draft EIR/Supplemental Draft EIS				
(y) Access assessment based on Appendix I, Supplemental Chapter 2 Attachments, Attachment G, Local Circulation Modifications, in the Recirculated Draft EIR/Supplemental Draft EIS				
(z) Subsection titled “City and County General Plans” (page 3.1-32), in Section 3.1, Land Use, in the Recirculated Draft EIR/Supplemental Draft EIS				
(aa) Table 3.3.C, Impacts to Farmland per Alternative (acres) (page 3.3-9), in Section 3.3, Farmlands/Timberlands, in the Recirculated Draft EIR/Supplemental Draft EIS				
(bb) Tables 3.4.F, Full Parcel Acquisitions and Displacements by Alternative (page 3.4-34), and 3.4.G, Number of Displaced Employees by Alternative and Jurisdiction (page 3.4-36), in Section 3.4, Community Impacts, in the Recirculated Draft EIR/Supplemental Draft EIS				
(cc) Subsections titled “Temporary Impacts” (page 3.4-29), and “Permanent Impacts” (page 3.4-50), in Section 3.4, Community Impacts, in the Recirculated Draft EIR/Supplemental Draft EIS				
(dd) Section 3.4.3, Environmental Justice (page 3.4-41), in Section 3.4, Community Impacts, in the Recirculated Draft EIR/Supplemental Draft EIS				
(ee) Section 3.5.2, Environmental Consequences (page 3.5-3), in Section 3.5, Utilities/Emergency Services, in the Recirculated Draft EIR/Supplemental Draft EIS				
(ff) Travel pattern disruptions based on changes to access described in Appendix I, Supplemental Chapter 2 Attachments, Attachment G, Local Circulation Modifications, in the Recirculated Draft EIR/Supplemental Draft EIS				
(gg) Subsections titled “Perris Area (Mead Valley)/City of Perris” (pages 3.4-24, 3.4-27, and 3.4-29, respectively, for Alternatives 4, 5, and 9 Modified), in Section 3.4, Community Impacts, in the Recirculated Draft EIR/Supplemental Draft EIS				
(hh) Tables 3.14.I, Daily PM2.5 Emissions (lbs/day) (page 3.14-22); 3.14.J, Daily PM10 Emissions (lbs/day) (page 3.14-22); 3.14.S, MSAT Emissions for the MCP Study Area (lbs/day) (page 3.14-34); 3.14.T, 2008 Regional Vehicle Emissions (lbs/day) (page 3.14-36); 3.14.U, 2020 Regional Vehicle Emissions (lbs/day) (page 3.14-37); 3.14.V, 2040 Regional Vehicle Emissions (lbs/day); and 3.14.W Maximum Project Construction Emissions (lbs/day) (page 3.14-42)				
(ii) Section 3.15.3.1, Permanent Impacts (page 3.15-67), and Tables 3.15.Q through 3.15.X (starting on page 3.15-37), in Section 3.15, Noise, in the Recirculated Draft EIR/Supplemental Draft EIS				
(jj) Subsection titled “Noise Abatement Consideration” (page 3.15-70), and Table 3.15.AB, Summary of Preliminary Recommended Noise Barriers, (page 3.15-96), in Section 3.15, Noise, in the Recirculated Draft EIR/Supplemental Draft EIS				

BMP = best management practice
CETAP = Community and Environmental Transportation Acceptability Process
CO = carbon monoxide
CO₂ = carbon dioxide
dB = decibels
dBA = A-weighted decibels
EIR = Environmental Impact Report
EIS = Environmental Impact Statement
EMS = Emergency Medical Services
ERDC = Engineer and Research Development Center
ESA = Environmentally Sensitive Area
HCP = Habitat Conservation Plan
lbs/day = pounds per day
L_{eq} = equivalent continuous sound level
MCP = Mid County Parkway
MSHCP = Multiple Species Habitat Conservation Plan
N/A = Not Applicable
NAAQS = National Ambient Air Quality Standards
NAC = Noise Abatement Criteria
National Register = National Register of Historic Places
NEPA = National Environmental Policy Act

NO_x = nitrogen oxides
PM₁₀ = particulate matter less than 10 microns in size
PM_{2.5} = particulate matter less than 2.5 microns in size
PQP = Public/Quasi-Public
RDEIR = Recirculated Draft Environmental Impact Report
RDEIS = Recirculated Draft Environmental Impact Statement
ROG = reactive organic gases
ROW = right of way
SAMP = Special Area Management Plan
SBKR = San Bernardino kangaroo rat
SJN = San Jacinto North
SJN DV = San Jacinto North Design Variation
SJRB DV = San Jacinto River Bridge Design Variation
SJS = San Jacinto South
SKR = Stephens’ kangaroo rat
SO_x = oxides of sulfur
SR-79 = State Route 79
STAA = Surface Transportation Assistance Act
USACE = United States Army Corps of Engineers
Y/N = yes/no

Table B: Detail Matrix of the Evaluation of Alternative 9 Modified Design Variations and Section 404 No Action Alternative

Criteria	Values (Metrics)	Alternative 9 Modified			
		Base Case Design	SJN DV	SJRB DV	Section 404 No Action Alternative
I. PURPOSE AND NEED					
1. Provide capacity for 2040	Y/N	Yes	Yes	Yes	Yes
2. Serve regional movement of people and goods	Y/N	Yes	Yes	Yes	Yes
3. Provide roadway geometrics to meet State Highway design standards	Y/N	Yes	Yes	Yes	Yes
4. Provide limited access facility	Number of Access Points	8	8	8	8
5. Accommodate STAA trucks	Y/N	Yes	Yes	Yes	Yes
6. Provide a facility that is compatible with a future multimodal transportation system	Y/N	Yes	Yes	Yes	Yes
7. Provide an effective and efficient connection between and through San Jacinto and Perris	Y/N	Yes	Yes	Yes	Yes
II. REASONABLE AND PRACTICABLE					
1. COST					
1.1 Construction ¹	U.S. Dollars	\$ 1.31 Billion	\$1.27 Billion	\$1.31 Billion	\$1.65 Billion
1.2 ROW Acquisition	U.S. Dollars	\$0.19 Billion	\$0.15 Billion	\$0.19 Billion	\$0.19 Billion
1.3 Mitigation ²	U.S. Dollars	\$0.11 Billion	\$0.11 Billion	\$0.08 Billion	\$0.11 Billion
1.4 Total (Construction, ROW, Mitigation)	U.S. Dollars	\$1.61 Billion	\$1.53 Billion	\$1.58 Billion	1.95 Billion
1.5 Engineering/Design	U.S. Dollars	\$0.32 Billion	\$0.31 Billion	\$0.32 Billion	\$0.39 Billion
2. TECHNOLOGICAL CONSTRAINTS					
2.1 Safety (Non-Highway)	Y/N	No	No	No	No
2.2 Engineering Issues	Y/N	No	No; but the interchange spacing does not meet Caltrans’ standard	No	No
3. LOGISTICAL CONSTRAINTS					
3.1 Logistical Constraints	Y/N	No	No	No	No
4. OTHER NEPA/404 CRITERIA					
4.1 Unacceptable Adverse Social, Economic, or Environmental Impacts	Y/N	No	No	No	No
4.2 Serious Community Disruption	Y/N	No	No	No	No

Table B: Detail Matrix of the Evaluation of Alternative 9 Modified Design Variations and Section 404 No Action Alternative

Criteria	Values (Metrics)	Alternative 9 Modified			
		Base Case Design	SJN DV	SJRB DV	Section 404 No Action Alternative
III. ENVIRONMENTAL					
1. WATER RESOURCES/AQUATIC ECOSYSTEM					
1.1 USACE Jurisdictional Waters/Wetlands (Impacts to Waters of the U.S.)	Acreage	• 5.01 acres of permanent impacts (0.64 acres of wetlands; 4.37 acres of non-wetland waters)	• 4.25 acres of permanent impacts (0.38 acre of wetlands; 3.87 acres of non-wetland waters)	• 5.01 acres of permanent impacts (0.64 acres of wetlands; 4.37 acres of non-wetland waters)	Not analyzed ³
		• 6.91 acres of temporary impacts (4.79 acres of wetlands; 2.12 acres of non-wetland waters)	• 5.06 acres of temporary impacts (3.08 acres of wetlands; 1.98 acres of non-wetland waters)	• 6.91 acres of temporary impacts (4.79 acres of wetlands; 2.12 acres of non-wetland waters)	Not analyzed ³
1.1A California Department of Fish and Wildlife Jurisdictional Area	Acreage	• 7.50 total acres of permanent impacts	• 7.87 total acres of permanent impacts	• 7.50 total acres of permanent impacts	Not analyzed ³
		• 4.30 total acres of temporary impacts	• 2.24 total acres of temporary impacts	• 4.30 total acres of temporary impacts	Not analyzed ³
1.2 Functions/Values Affected (Hydrology Impacts)	Sum of normalized rank scores for all criteria for alternatives corridor alignments from ERDC Riparian Ecosystem Integrity Assessment (lower number = fewer impacts)	9.2	9	10.8	Not analyzed ³
1.3 Consistent with SAMP Goals	Not applicable	Not applicable	Not applicable	Not applicable	Not analyzed ³
1.4 Floodplain Impacts	Floodplain Affected:	• Perris Valley Storm Drain: TE	• Perris Valley Storm Drain: TE	• Perris Valley Storm Drain: TE	Not analyzed ³
	Transverse Encroachment (TE)	• San Jacinto River at Lakeview: TE	• San Jacinto River at Lakeview: TE	• San Jacinto River at Lakeview: TE	Not analyzed ³
	Longitudinal Encroachment (LE)	• San Jacinto River at SR-79: LE	• San Jacinto River at SR-79: LE	• San Jacinto River at SR-79: LE	Not analyzed ³
1.5 Beneficial Uses Affected	Beneficial Use	With implementation of BMPs, there will be no adverse effects to Beneficial Uses.	With implementation of BMPs, there will be no adverse effects to Beneficial Uses.	With implementation of BMPs, there will be no adverse effects to Beneficial Uses.	Not analyzed ³
1.6 Water Quality Construction Impacts	No. of Stream Crossings; Acres of soil disturbance	• 11 stream crossings	• 10 stream crossings	• 11 stream crossings	Not analyzed ³
		• 1,091 acres of maximum disturbed soil	• 1,078 acres of maximum disturbed soil	• 1,091 acres of maximum disturbed soil	
1.7 Water Quality Permanent Impacts	Acres of new pavement; Acres of steep slopes; Increase/Decrease in pollutant loads	• 479.5 acres of new pavement	• 460.3 acres of new pavement	• 429.5 acres of new pavement	Not analyzed ³
		• 6 acres of steep slopes	• 6 acres of steep slopes	• 6 acres of steep slopes	Not analyzed ³
		• Decrease annual loading with implemented BMPs	• Decrease annual loading with implemented BMPs	• Decrease annual loading with implemented BMPs	
2. THREATENED AND ENDANGERED SPECIES					
2.1 Species/Populations Affected (Wildlife)	Acreage	• 3.7 acres of least Bell’s vireo habitat	• 3.6 acres of least Bell’s vireo habitat	• 3.7 acres of least Bell’s vireo habitat	Not analyzed ³
		• 1.7 acres of occupied SBKR habitat	• 1.8 acres of occupied SBKR habitat	• 1.7 occupied SBKR habitat	Not analyzed ³
		• 1.5 acres of reinstated SBKR critical habitat (2002)	• 1.5 acres of reinstated SBKR critical habitat (2002)	• 1.5 acres of reinstated SBKR critical habitat (2002)	Not analyzed ³
2.2 Species/Populations Affected (Plants)	Acreage (temporary and permanent impacts)	• 0.36 acre of occupied San Jacinto valley crownscale habitat	• 0.36 acre of occupied San Jacinto valley crownscale habitat	• 0.36 acre of occupied San Jacinto valley crownscale habitat	Not analyzed ³
		• 1.09 acres of occupied spreading navarretia habitat and final critical habitat (2008) with primary constituent elements	• 1.09 acres of occupied spreading navarretia habitat and final critical habitat (2008) with primary constituent elements	• 1.09 acres of occupied spreading navarretia habitat and final critical habitat (2008) with primary constituent elements	Not analyzed ³

Table B: Detail Matrix of the Evaluation of Alternative 9 Modified Design Variations and Section 404 No Action Alternative

Criteria	Values (Metrics)	Alternative 9 Modified			
		Base Case Design	SJN DV	SJRB DV	Section 404 No Action Alternative
3. PLANT COMMUNITIES					
3.1 Sensitive Plant Communities Affected	Acreage (temporary and permanent impacts)	• 87.0 acres of Riversidean upland sage scrub	• 87.0 acres of Riversidean upland sage scrub	• 87.0 acres of Riversidean upland sage scrub	Not analyzed ³
		• 27.8 acres of San Jacinto River alkali communities (20.9 acres permanent [2.2 acres due to bridge fill, 8.5 acres due to bridge shading, and 10.2 acres of other permanent impacts], 7.2 acres temporary)	• 27.8 acres of San Jacinto River alkali communities (20.9 acres permanent [2.2 acres due to bridge fill, 8.5 acres due to bridge shading, and 10.2 acres of other permanent impacts], 7.2 acres temporary)	• 29.9 acres of San Jacinto River alkali communities (26.6 acres permanent [10.6 acres due to bridge fill, 4.8 acres due to bridge shading, and 11.2 acres of other permanent imapcts], 3.5 acres temporary)	Not analyzed ³
		• 5.1 total acres of riparian habitat (2.4 acres permanent, 2.7 acres temporary)	• 4.2 total acres of riparian habitat (3.4 acres permanent, 0.8 acre temporary)	• 5.1 total acres of riparian habitat (2.4 acres permanent, 2.7 acres temporary)	Not analyzed ³
4. EFFECTS ON SKR HCP					
4.1 SKR HCP Reserves	Require Acquisition of Reserve Land (Y/N)	No	No	No	Not analyzed ³
5. EFFECTS ON WESTERN RIVERSIDE COUNTY MSHCP					
5.1 MSHCP Consistency Determination	Consistency Determination Required (Y/N)	Yes	Yes	Yes	Not analyzed ³
		• 191.9 acres affected of Criteria Area	• 192.8 acres affected of Criteria Area	• 194.0 acres affected of Criteria Area	Not analyzed ³
5.2 Conservation Goals	Acreage Affected of MSHCP Criteria Area, Public/Quasi-Public Lands, and MSHCP Conservation Area (Cores/Linkages) (temporary and permanent impacts)	• 3.4 acres acquired of PQP lands	• 3.4 acres acquired of PQP lands	• 3.4 acres acquired of PQP lands	Not analyzed ³
		• 3.8 acres affected of PQP lands	• 3.8 acres affected of PQP lands	• 3.8 acres affected of PQP lands	Not analyzed ³
		• 62–68 acres affected of Conservation Area	• 62–68 acres affected of Conservation Area	• 64–70 acres affected of Conservation Area	Not analyzed ³
5.4 Mitigation Acreage Required	Acreage	Not applicable	Not applicable	11 acres of riparian habitat and 35 acres of alkaline riverine habitat	Not analyzed ³
5.5 Mitigation Acreage Available	Y/N	Not applicable	Not applicable	Yes	Not analyzed ³
6. SECTION 4(f) RESOURCES					
6.1 Section 4(f) Resources - Direct Use	Total Section 4(f) Resources, Acreage, and Cultural Sites	• 3.4 acres of the San Jacinto Wildlife Area	• 3.4 acres of the San Jacinto Wildlife Area	• 3.4 acres of the San Jacinto Wildlife Area	Not analyzed ³
		• 5.18 acres of P-33-16598 (CA RIV 8712) Multiuse Prehistoric Site Cultural Site 4 bedrock milling sites	• 5.18 acres of P-33-16598 (CA RIV 8712) Multiuse Prehistoric Site Cultural Site 4 bedrock milling sites	• 5.18 acres of P-33-16598 (CA RIV 8712) Multiuse Prehistoric Site Cultural Site 4 bedrock milling sites	Not analyzed ³
6.2 Section 4(f) Resources - constructive use	Number of Section 4(f) Resources	None	None	None	Not analyzed ³
7. SECTION 6(f) LANDS					
7.1 Section 6(f) Lands Affected	Acreage	None	None	None	Not analyzed ³
8. CULTURAL RESOURCES (includes sites not eligible for National Register)					
8.1 Prehistoric Archaeological Resources	Number of Sites	Adverse effects to five sites (P-33-16598, P-33-9862, P-33-19863, P-33-19864, and P-33-19866) and avoidance of P-33-3653 with an ESA.	Adverse effects to five sites (P-33-16598, P-33-9862, P-33-19863, P-33-19864, and P-33-19866) and avoidance of P-33-3653 with an ESA.	Adverse effects to five sites (P-33-16598, P-33-9862, P-33-19863, P-33-19864, and P-33-19866) and avoidance of P-33-3653 with an ESA.	Not analyzed ³
8.2 Historic Archaeological/ Architectural Resources	Number of Sites	0 sites	0 sites	0 sites	Not analyzed ³

Table B: Detail Matrix of the Evaluation of Alternative 9 Modified Design Variations and Section 404 No Action Alternative

Criteria	Values (Metrics)	Alternative 9 Modified			
		Base Case Design	SJN DV	SJRB DV	Section 404 No Action Alternative
8.3 Sacred Sites	Number of Sites	1 site	1 site	1 site	Not analyzed ³
9. LAND USE IMPACTS					
9.1a Access Impacts (Business)	Ranking 1-3 (1 Least Impact, 3 Worst Impact)	1	3	1	Not analyzed ³
9.1b Access Impacts (Residential)	Ranking 1-3 (1 Least Impact, 3 Worst Impact)	1	3	1	Not analyzed ³
9.2a Cities of San Jacinto and Perris	Inconsistencies	• Inconsistent with designated roadways and land uses for the City of Perris General Plan focused along Placentia Avenue.	• Inconsistent with designated roadways and land uses for the City of Perris General Plan focused along Placentia Avenue.	• Inconsistent with designated roadways and land uses for the City of Perris General Plan focused along Placentia Avenue.	Not analyzed ³
		• Amendments to San Jacinto General Plan required to reflect either SJN or SJS DV alignment at east end of MCP.	• Amendments to San Jacinto General Plan required to reflect either SJN or SJS DV alignment at east end of MCP.	• Amendments to San Jacinto General Plan required to reflect either SJN or SJS DV alignment at east end of MCP.	Not analyzed ³
9.2b County of Riverside	Inconsistencies	• Inconsistent with Land Use Policies LU 16.2 and 16.4, which protect agricultural lands.	• Inconsistent with Land Use Policies LU 16.2 and 16.4, which protect agricultural lands.	• Inconsistent with Land Use Policies LU 16.2 and 16.4, which protect agricultural lands.	Not analyzed ³
9.3 Farmland Impacts	Acreage	Prime Farmland 190.95 acres, Farmland of State Importance 149.91 acres, Unique Farmland 47.49 acres, Farmland of Local Importance 578.57 acres, and Grazing Land 74.87 acres. (Total: 1,041.79 acres)	Prime Farmland 191.19 acres, Farmland of State Importance 1498.27 acres, Unique Farmland 49.27 acres, Farmland of Local Importance 518.88 acres, and Grazing Land 74.87 acres. (Total: 1,032.55 acres)	Prime Farmland 190.95 acres, Farmland of State Importance 149.91 acres, Unique Farmland 47.49 acres, Farmland of Local Importance 580.69 acres, and Grazing Land 74.87 acres. (Total: 1,043.91 acres)	Not analyzed ³
10. SOCIOECONOMIC/COMMUNITY IMPACTS					
10.1 Business Displacements	Property acquisitions & employees displaced	• 103 non-residential property acquisitions	• 93 non-residential property acquisitions	• 103 non-residential property acquisitions	Not analyzed ³
		• 37 businesses displaced	• 35 businesses displaced	• 37 businesses displaced	Not analyzed ³
		• 188 employees potentially displaced	• 207 employees potentially displaced	• 188 employees potentially displaced	Not analyzed ³
10.2 Residential Displacements	Property acquisitions & occupants displaced	• 103 residential property acquisitions	• 105 residential property acquisitions	• 103 residential property acquisitions	Not analyzed ³
		• 659 occupants displaced	• 675 occupants displaced	• 659 occupants displaced	Not analyzed ³
10.3 Travel Pattern Disruptions	Ranking 1-3 (1 Least Impact, 3 Worst Impact)	2	2	2	Not analyzed ³
10.4 Environmental Justice Concerns	Impacts to minority/low-income populations	• Does not result in disproportionate impacts to environmental justice populations	• Does not result in disproportionate impacts to environmental justice populations	• Does not result in disproportionate impacts to environmental justice populations	Not analyzed ³
10.5 Community Service Disruptions (EMS, fire, police)	Property acquisitions (Y/N)	No	No	No	Not analyzed ³
10.6 Neighborhood/Community Impacts	Y/N	Yes	Yes	Yes	Not analyzed ³
10.7 Schools	Direct Impacts	• No direct impact to schools.	• No direct impact to schools.	• No direct impact to schools.	Not analyzed ³
10.8 Support by local jurisdictions, community groups, and public	Support/Opposition	• City of Perris identified Alternative 9 Modified as its preferred alternative	• City of San Jacinto opposes the SJN DV	• Riverside County prefers the SJRB DV over the Base Case	Not analyzed ³

Table B: Detail Matrix of the Evaluation of Alternative 9 Modified Design Variations and Section 404 No Action Alternative

Criteria	Values (Metrics)	Alternative 9 Modified			
		Base Case Design	SJN DV	SJRB DV	Section 404 No Action Alternative
11. AIR QUALITY IMPACTS					
11.1 Criteria Pollutant Emissions in the MCP Region	Emissions in lbs/day	• 100.96 tons/day of CO	• 100.96 tons/day of CO	• 100.96 tons/day of CO	Not analyzed ³
		• 5.53 tons/day of ROG	• 5.53 tons/day of ROG	• 5.53 tons/day of ROG	Not analyzed ³
		• 26.18 tons/day of NO _x	• 26.18 tons/day of NO _x	• 26.18 tons/day of NO _x	Not analyzed ³
		• 0.60 ton/day of SO _x	• 0.60 ton/day of SO _x	• 0.60 ton/day of SO _x	Not analyzed ³
		• 5.82 tons/day of PM ₁₀	• 5.82 tons/day of PM ₁₀	• 5.82 tons/day of PM ₁₀	Not analyzed ³
11.2 Exceeds NAAQS Emission Standards	Y/N	No	No	No	Not analyzed ³
12. NOISE IMPACTS					
12.1 Sensitive Receptors Affected	Number of Modeled Receptors Affected	• Of the 355 modeled receptors, 66 receptors approach or exceed the 67 dBA L _{eq} NAC and 150 receptors would experience a substantial increase in noise of 12 dB or more.	• Of the 355 modeled receptors, 66 receptors approach or exceed the 67 dBA L _{eq} NAC and 150 receptors would experience a substantial increase in noise of 12 dB or more.	• Of the 355 modeled receptors, 66 receptors approach or exceed the 67 dBA L _{eq} NAC and 150 receptors would experience a substantial increase in noise of 12 dB or more.	Not analyzed ³
12.2 Amount of Mitigation Feasible	Number and Length of Sound Barriers	• 6 Sound Barriers	• 6 Sound Barriers	• 6 Sound Barriers	Not analyzed ³
		• 21,095 linear feet	• 100, 302 linear feet	• 21,095 linear feet	Not analyzed ³

Note: The references and sources for this table are the same as those provided in Table A and the LEDPA Paper.

¹Construction cost does not include mitigation costs for each alternative.

²Environmental Mitigation Costs include cost to purchase acreage for mitigation, wildlife undercrossing, and the San Jacinto River Bridge in the Lakeview area.

³The Section 404 No Action Alternative was deemed to be not practicable because of its high cost; therefore, it was not analyzed under the Environmental Criteria.

BMP = best management practice

CETAP = Community and Environmental Transportation Acceptability Process

CO = carbon monoxide

CO₂ = carbon dioxide

dB = decibels

dBA = A-weighted decibels

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EIS = Environmental Impact Statement

EMS = Emergency Medical Services

ERDC = Engineer and Research Development Center

ESA = Environmentally Sensitive Area

HCP = Habitat Conservation Plan

lbs/day = pounds per day

L_{eq} = equivalent continuous sound level

MCP = Mid County Parkway

MSHCP = Multiple Species Habitat Conservation Plan

NAAQS = National Ambient Air Quality Standards

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National Register = National Register of Historic Places

NEPA = National Environmental Policy Act

NO_X = nitrogen oxides

PM₁₀ = particulate matter less than 10 microns in size

PM_{2.5} = particulate matter less than 2.5 microns in size

PQP = Public/Quasi-Public

RDEIR = Recirculated Draft Environmental Impact Report

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SJN = San Jacinto North

SJN DV = San Jacinto North Design Variation

SJRB DV = San Jacinto River Bridge Design Variation

SJS = San Jacinto South

SKR = Stephens' kangaroo rat

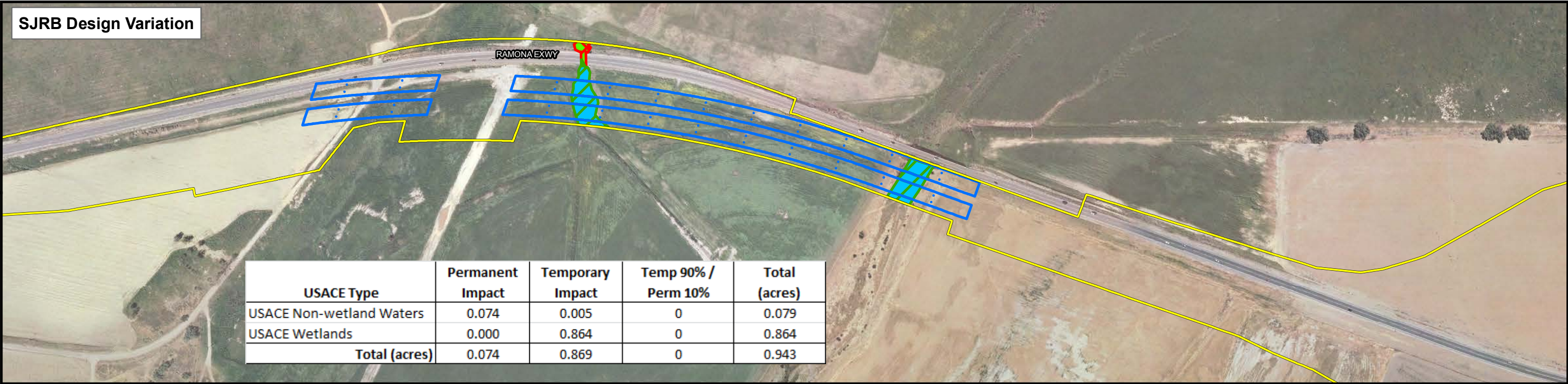
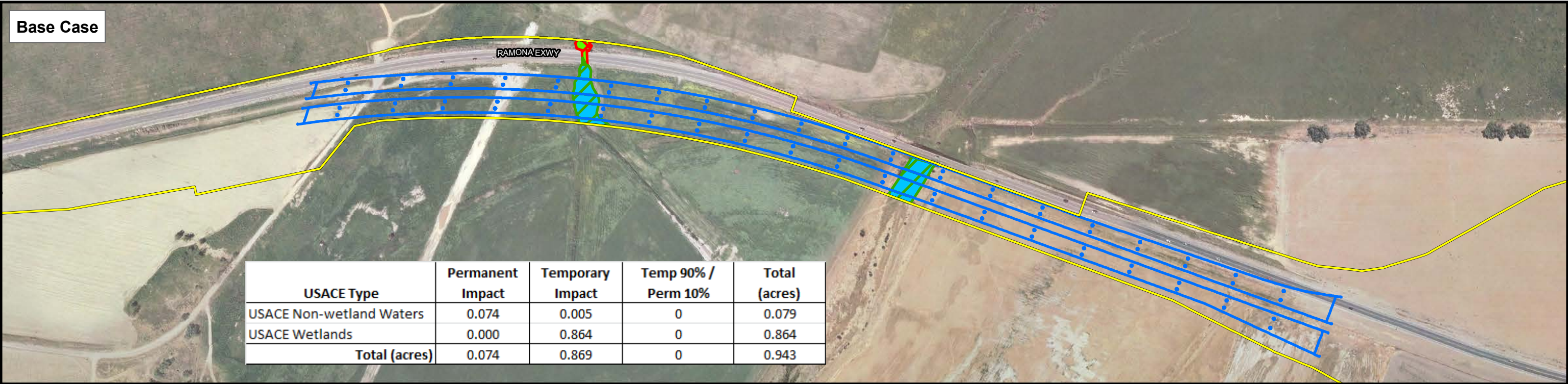
SO_X = oxides of sulfur

SR-79 = State Route 79

STAA = Surface Transportation Assistance Act

USACE = United States Army Corps of Engineers

Y/N = yes/no



LEGEND

Perm

Temp

Temp 90% / Perm 10%

Bridge Placement

Limits of Proposed Improvements

USACE (Federal) Wetlands

USACE Non-wetland Waters

SOURCE: Eagle Aerial (3/2010); Jacobs Engineering (2/2007); LSA (2007, 2013)

0 100 200 400 Feet

0 30 60 120 Meters

Criterion 1.1: USACE Jurisdictional Waters/Wetlands at San Jacinto River-Lakeview

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34.3

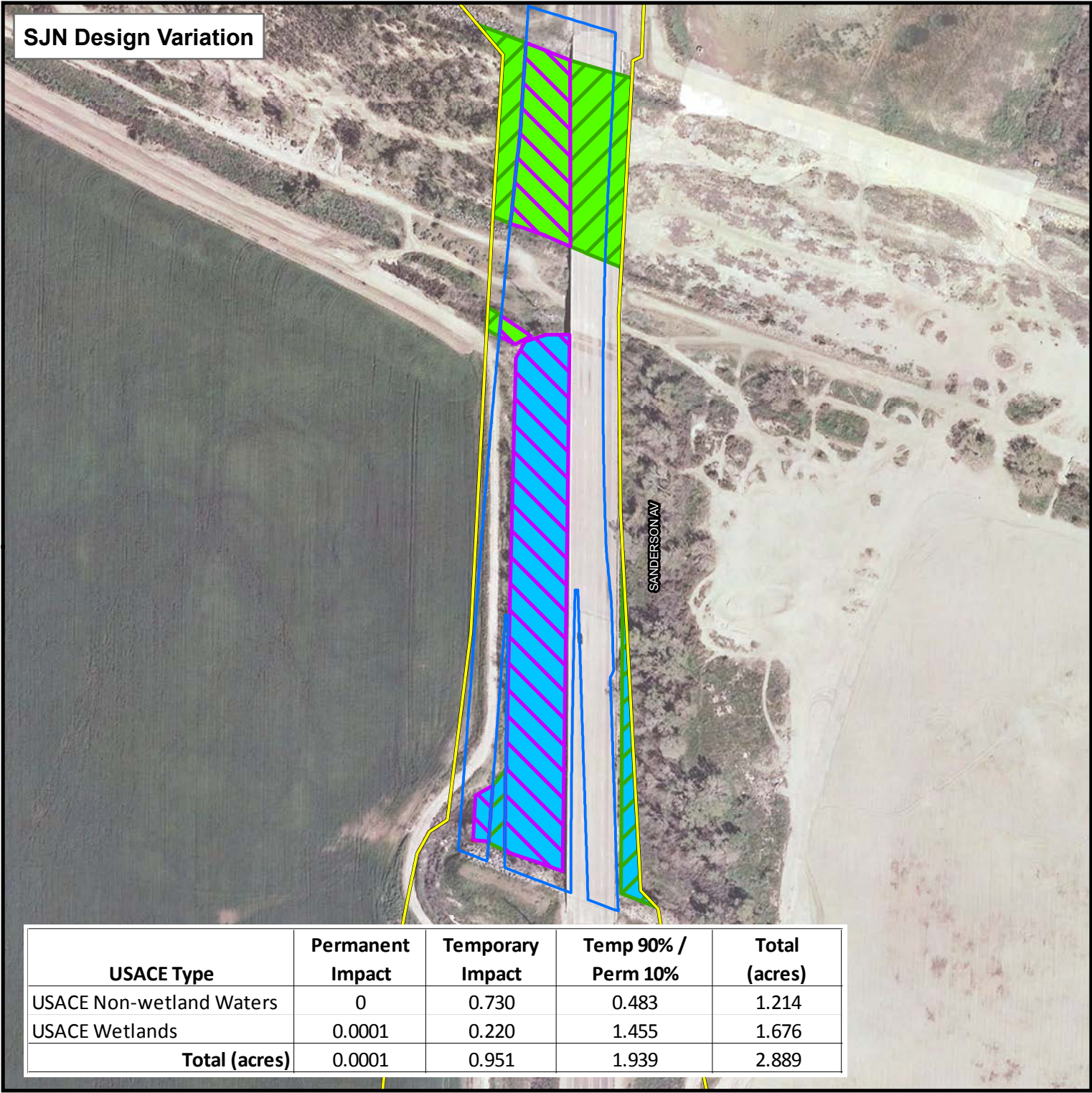
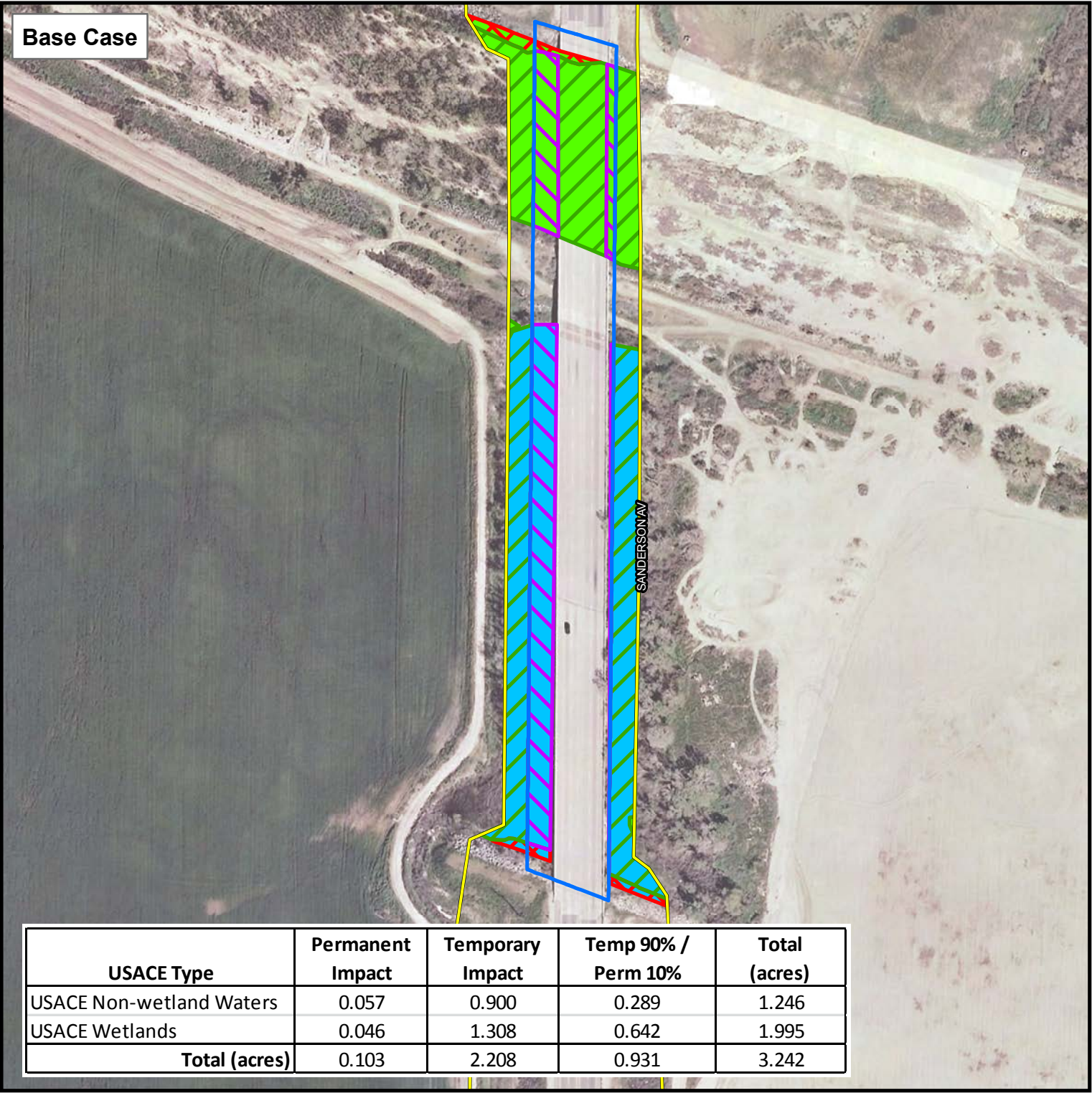
EA 08-0F3200 (PN 0800000125)

MID COUNTY PARKWAY

SAN JACINTO—PERRIS

CETAP

FIGURE B-1



LEGEND

Perm

Temp

Temp 90% / Perm 10%

Bridge Placement

Limits of Proposed Improvements

USACE (Federal) Wetlands

USACE Non-wetland Waters

SOURCE: Eagle Aerial (3/2010); Jacobs Engineering (2/2007); LSA (2007, 2013)

0 50 100 200 Feet

0 15 30 60 Meters

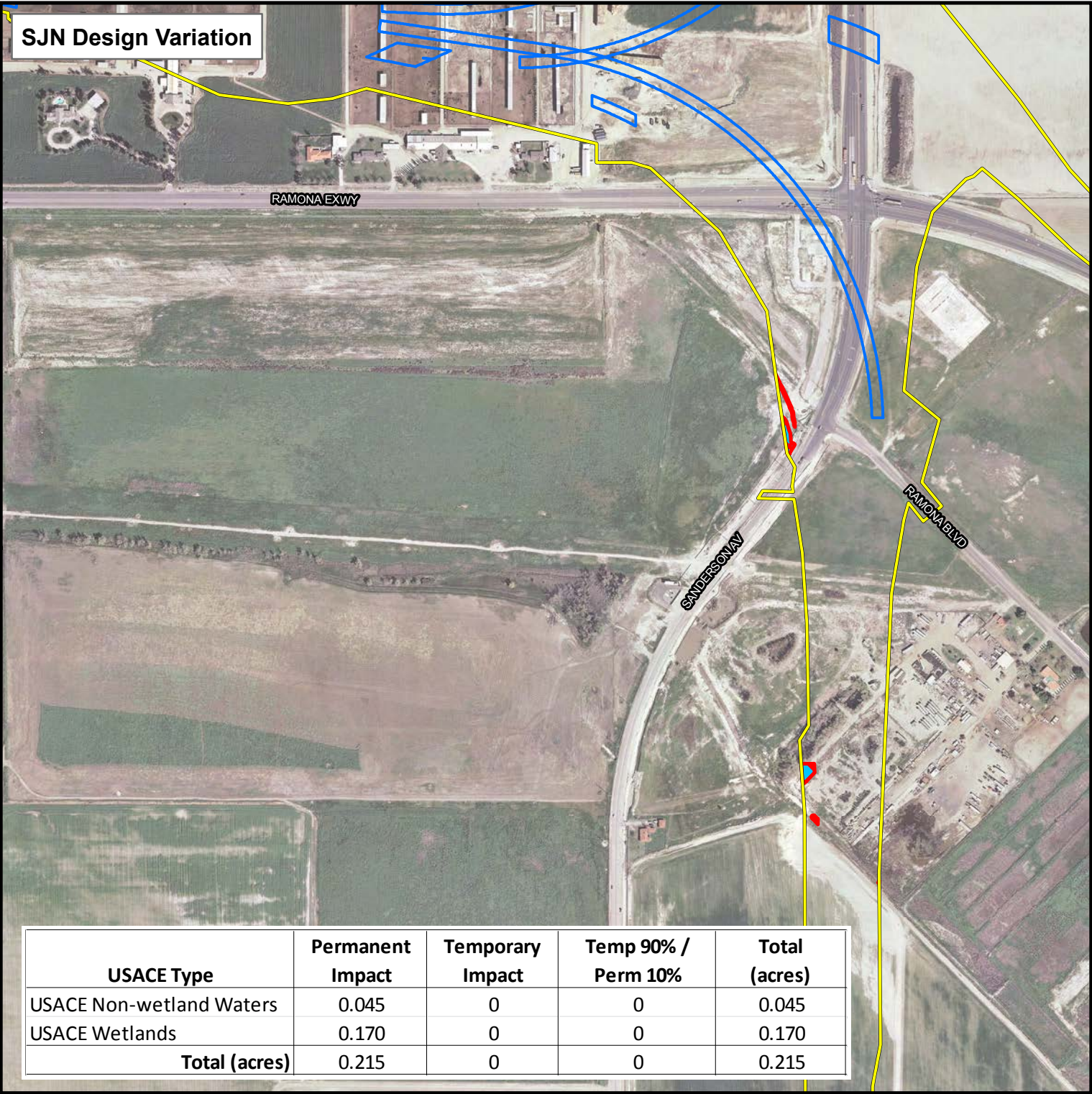
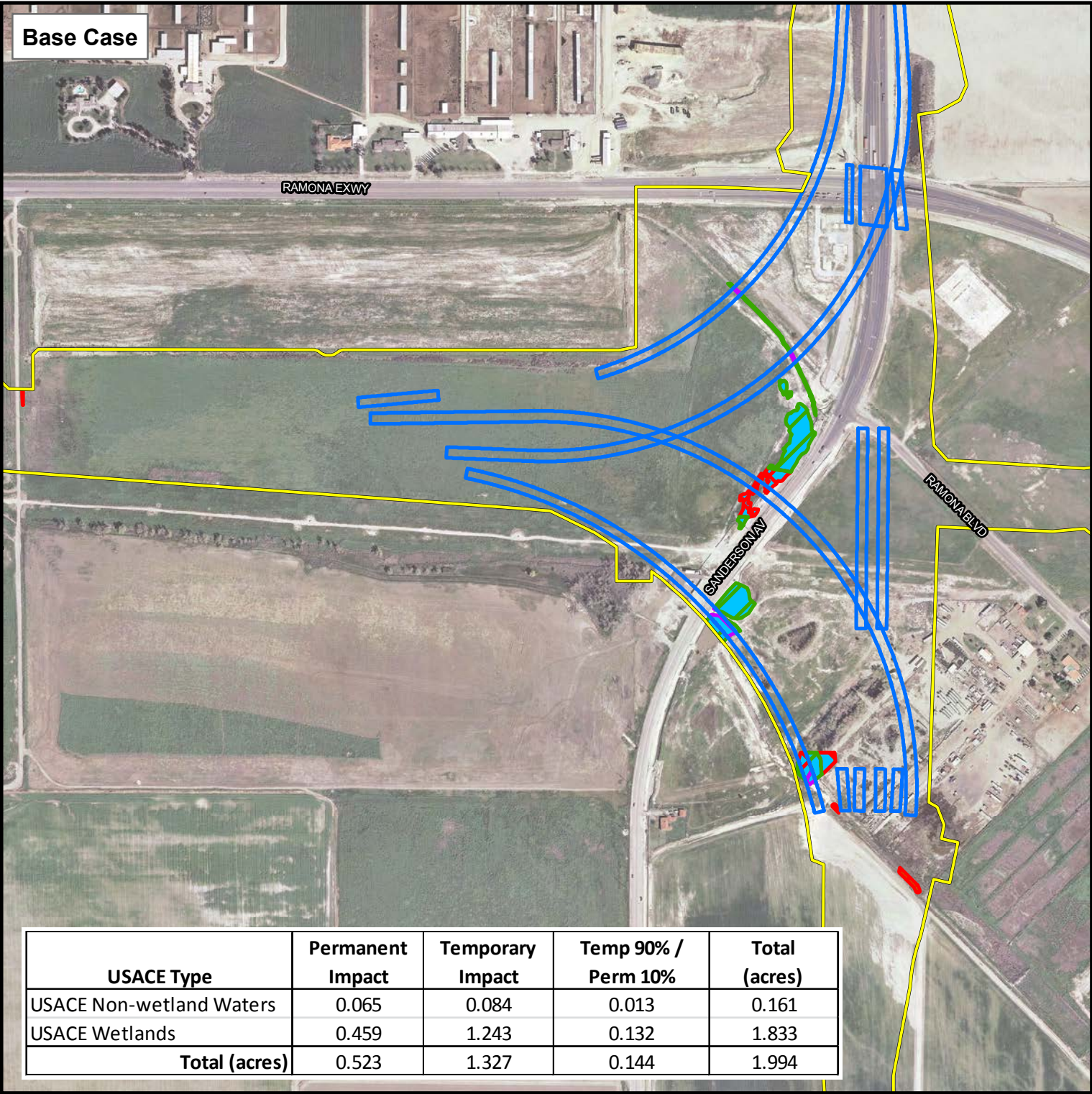
I:\JCV531\GIS_Mod\Bio\LEDPA\USACE_SR79BSJR_DV.mxd (12/19/2013)

FIGURE B-2

Criterion 1.1: USACE Jurisdictional Waters/Wetlands at SR-79 Bridge/San Jacinto River

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34.3

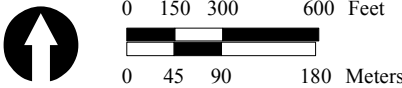
EA 08-0F3200 (PN 0800000125)



LEGEND

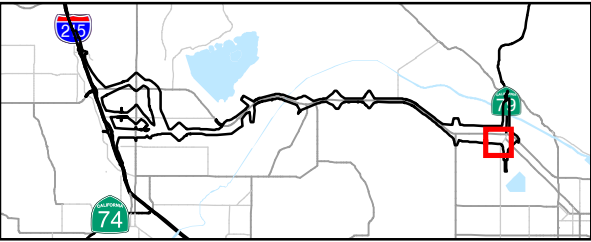
Perm	Bridge Placement	USACE (Federal) Wetlands
Temp	Limits of Proposed Improvements	USACE Non-wetland Waters
Temp 90% / Perm 10%		

SOURCE: Eagle Aerial (3/2010); Jacobs Engineering (2/2007); LSA (2007, 2013)



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FIGURE B-3



Criterion 1.1: USACE Jurisdictional Waters/Wetlands at MCP/SR-79 Interchange

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34.3
EA 08-0F3200 (PN 0800000125)

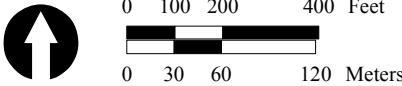




LEGEND

Perm	Bridge Placement	CDFW Jurisdictional Waters
Temp	Limits of Proposed Improvements	

SOURCE: Eagle Aerial (3/2010); Jacobs Engineering (2/2007); LSA (2007, 2013)



I:\CV531\GIS_Mod\Bio\LEDPA\CDFW_SJRB_DV.mxd (12/18/2013)

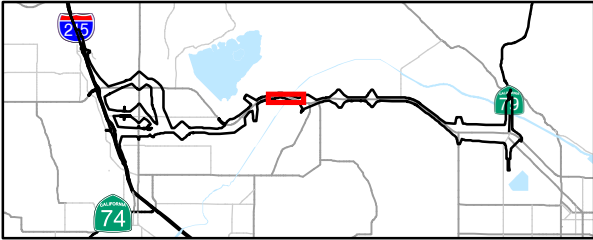
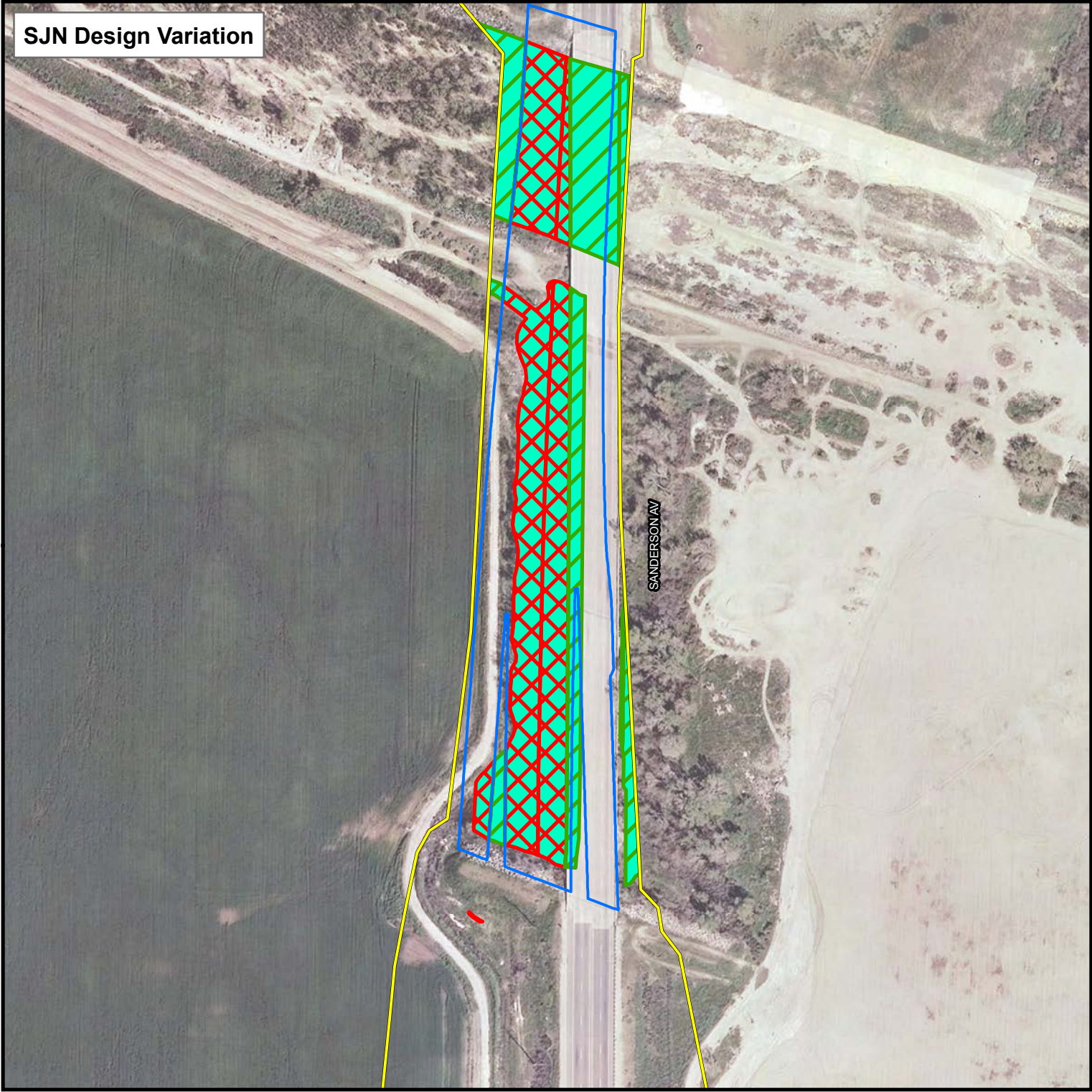
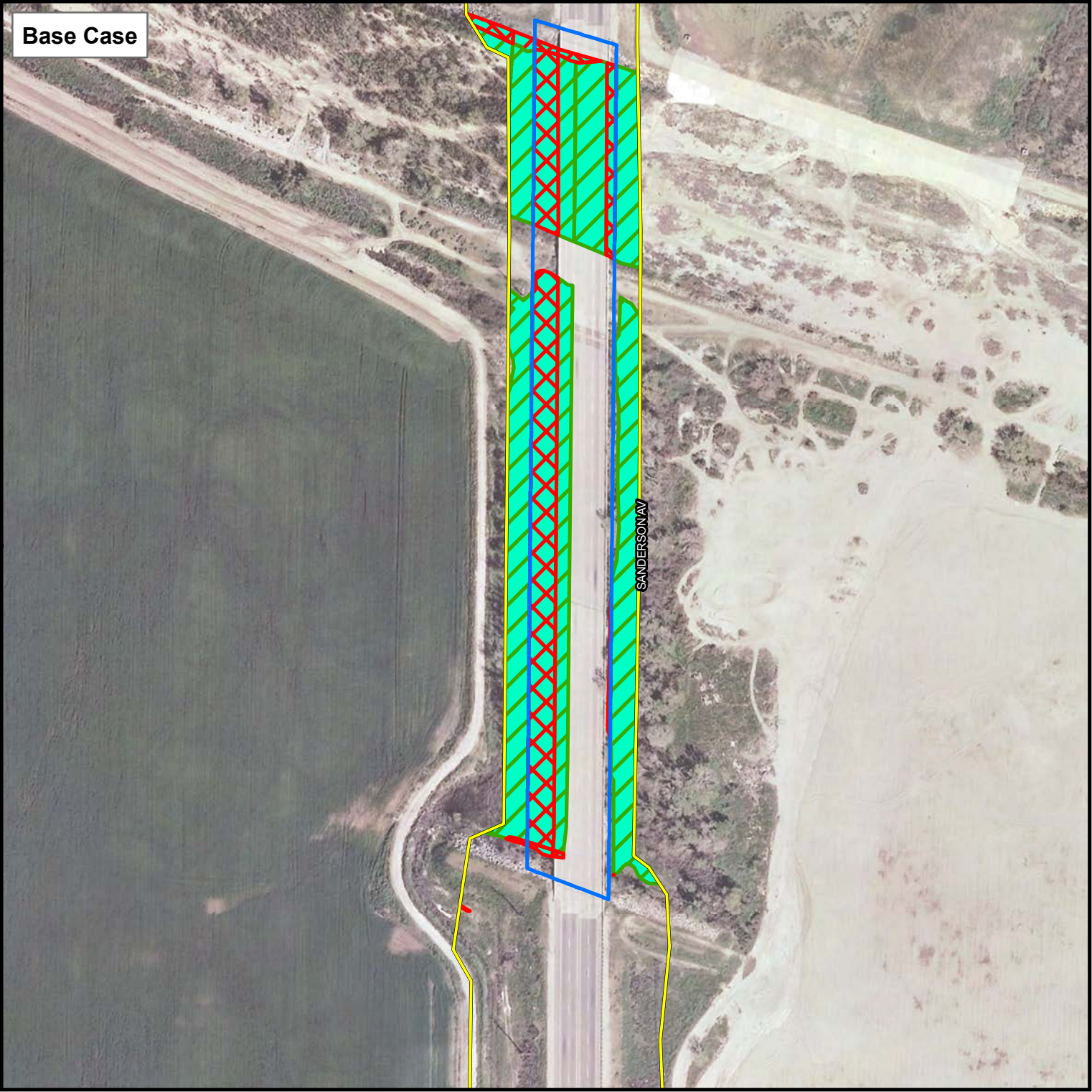


FIGURE B-4

Criterion 1.1A: CDFW Jurisdictional Waters/Wetlands at San Jacinto River-Lakeview
 08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34.3
 EA 08-0F3200 (PN 0800000125)

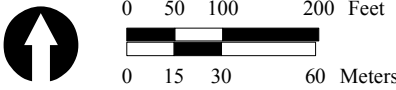




LEGEND

Perm	Bridge Placement	CDFW Jurisdictional Waters
Temp	Limits of Proposed Improvements	

SOURCE: Eagle Aerial (3/2010); Jacobs Engineering (2/2007); LSA (2007, 2013)



I:\CV531\GIS_Mod\Bio\LEDPA\CDFW_SR79BSJR_DV.mxd (12/18/2013)

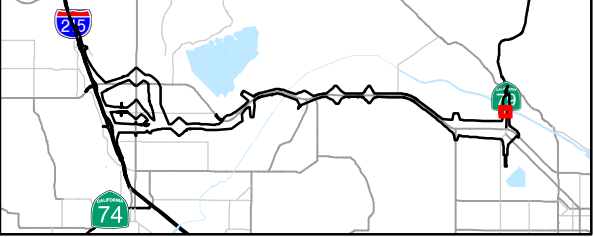
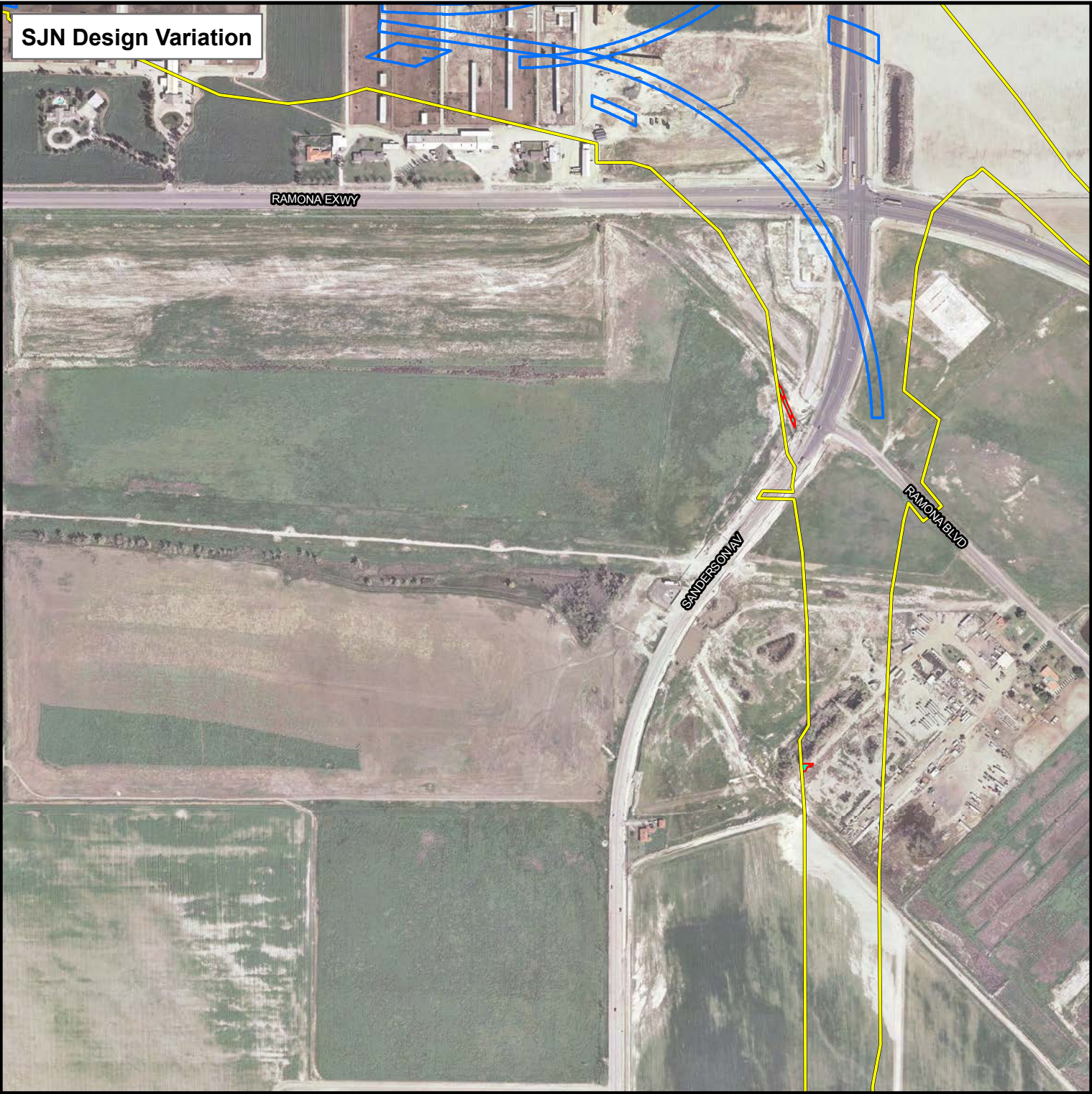
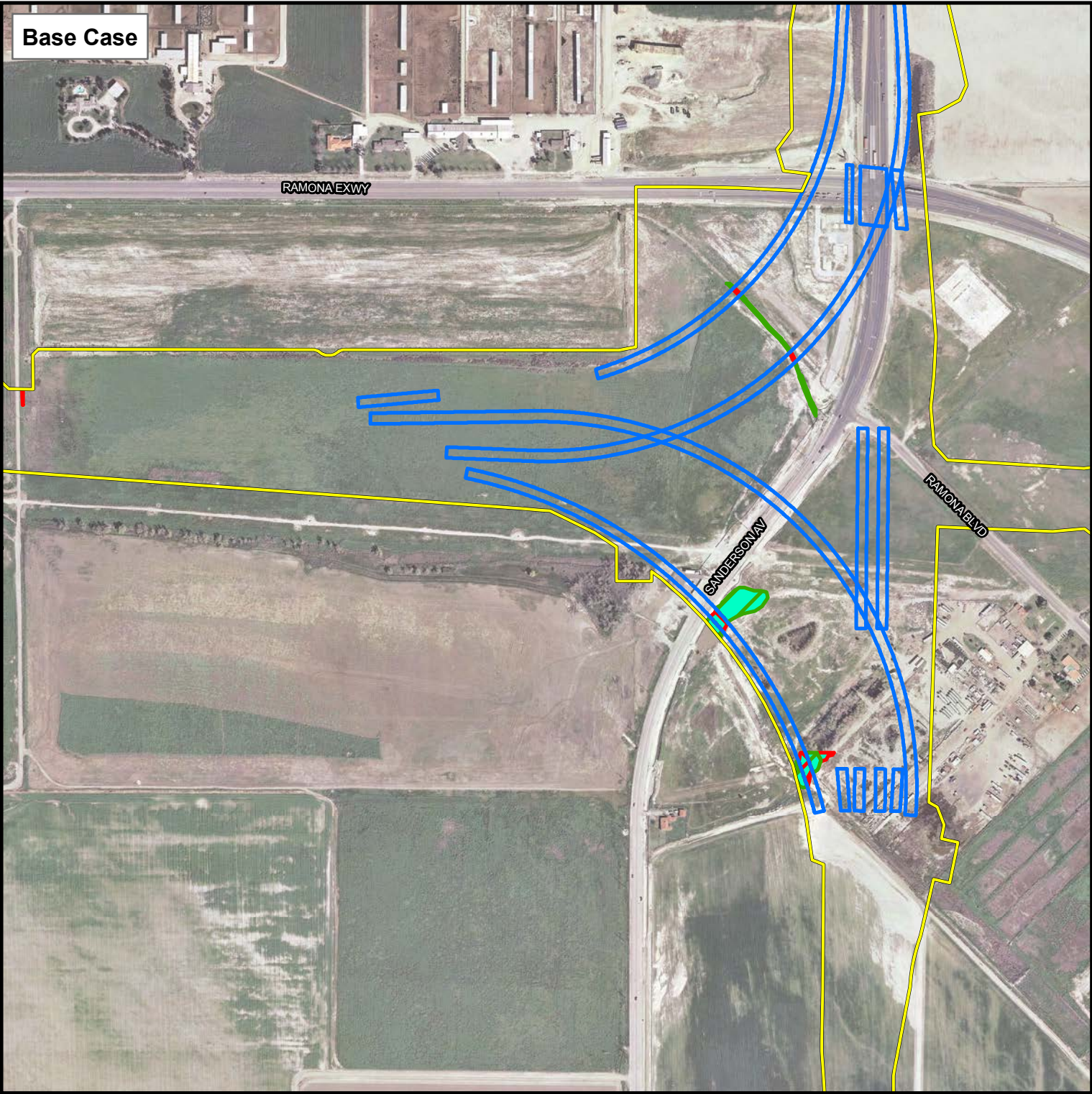


FIGURE B-5

Criterion 1.1A: CDFW Jurisdictional Waters/Wetlands at SR-79 Bridge/San Jacinto River

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34.3
EA 08-0F3200 (PN 0800000125)

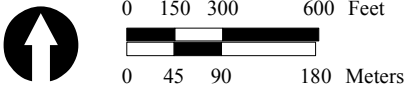




LEGEND

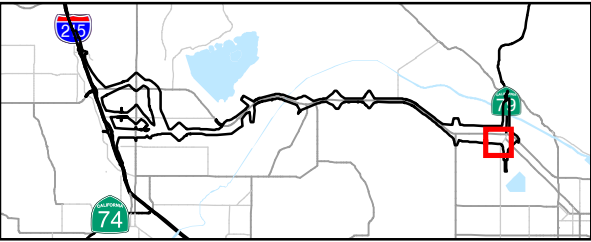
Perm	Bridge Placement	CDFW Jurisdictional Waters
Temp	Limits of Proposed Improvements	

SOURCE: Eagle Aerial (3/2010); Jacobs Engineering (2/2007); LSA (2007, 2013)



I:\CV531\GIS_Mod\Bio\LEDPA\CDFW_MCPSR79_DV.mxd (12/18/2013)

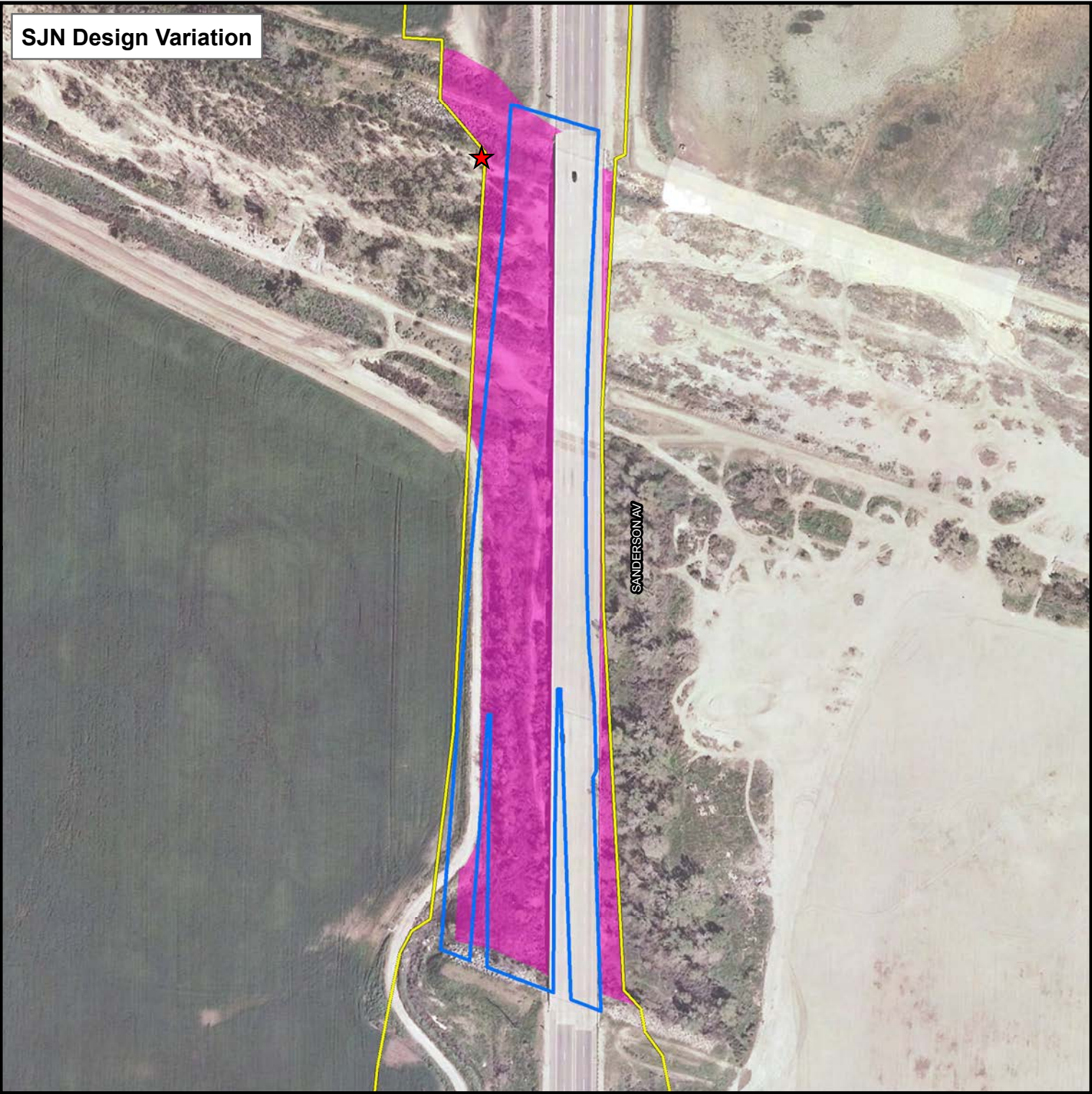
FIGURE B-6



Criterion 1.1A: CDFW Jurisdictional Waters/Wetlands at MCP/SR-79 Interchange

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34.3
EA 08-0F3200 (PN 0800000125)





- LEGEND
- Bridge Placement
 - Limits of Proposed Improvements
 - Permanent Impacts to Least Bell's Vireo Habitat for Suitable Long Term Conservation
 - ★ Least Bell's Vireo (Pair), 2008, Approximate Location
(Data provided by the Western Riverside County Regional Conservation Authority)

SOURCE: Eagle Aerial (3/2010); Jacobs Engineering (2/2007); LSA (2007, 2013)

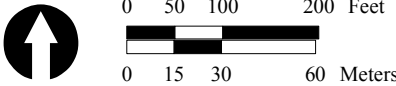
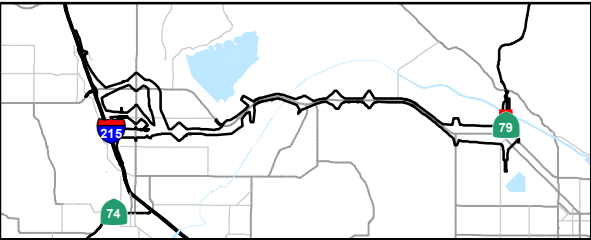
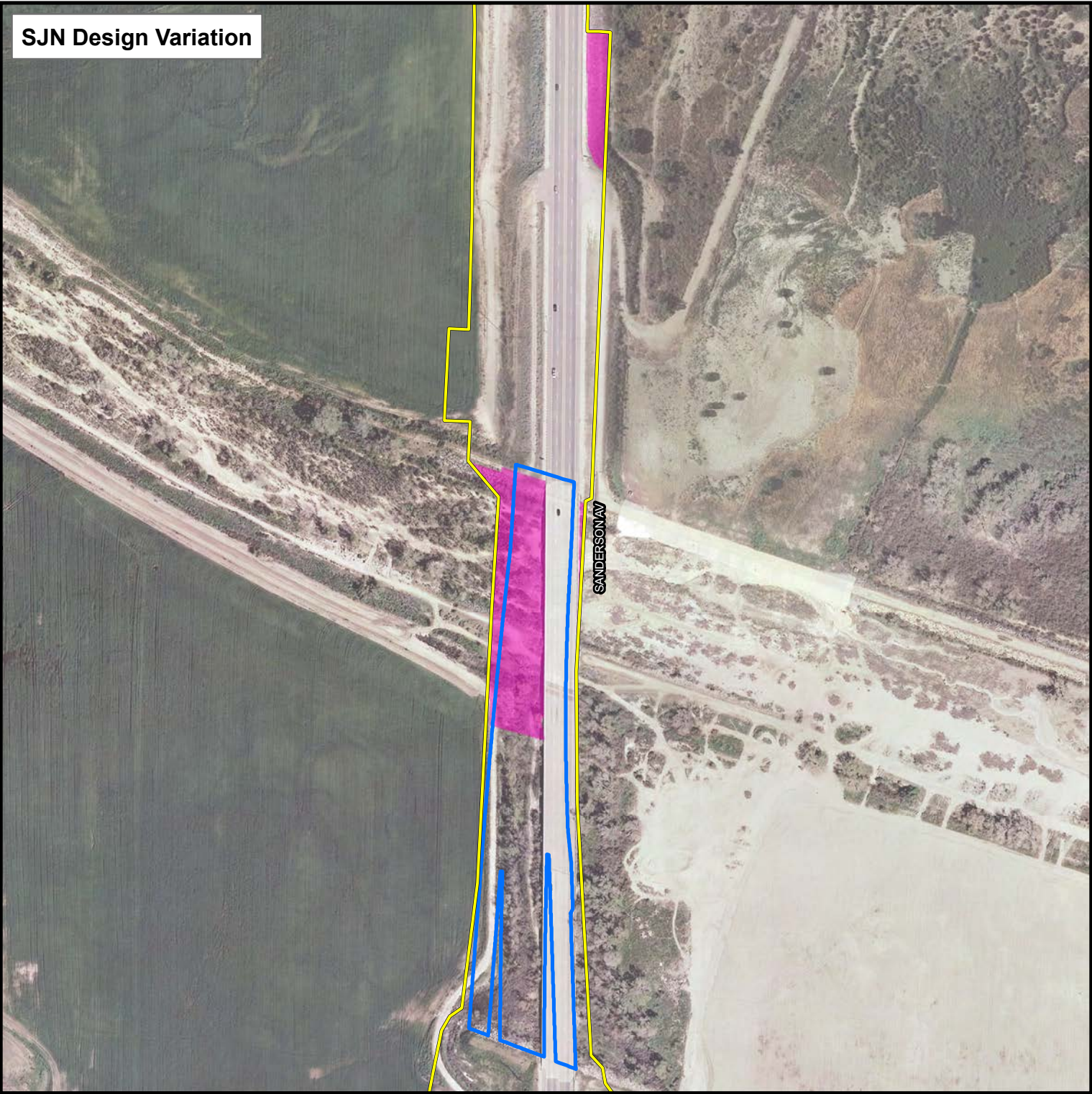
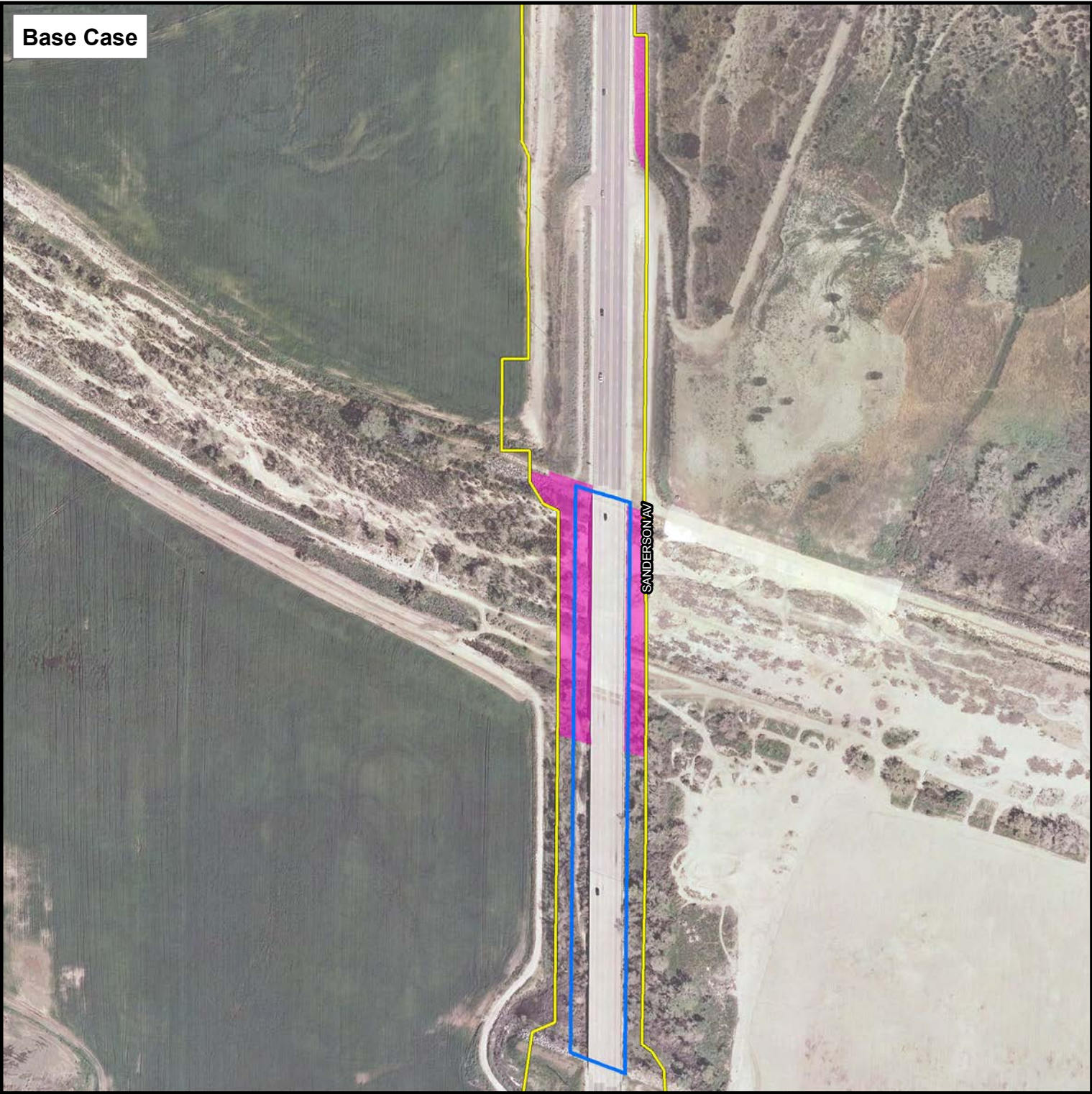


FIGURE B-7



Criterion 2.1 : Least Bell's Vireo
 08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34.3
 EA 08-0F3200 (PN 0800000125)





LEGEND

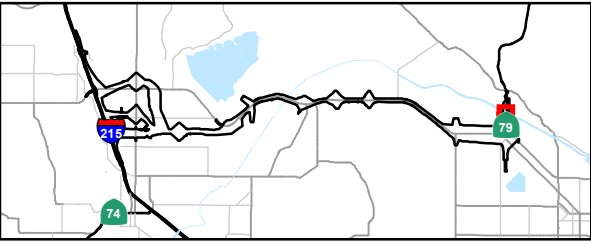
- Bridge Placement
- Permanent Impacts to Occupied San Bernardino Kangaroo Rat Habitat
- Limits of Proposed Improvements
(Data provided by the Western Riverside County Regional Conservation Authority)

SOURCE: Eagle Aerial (3/2010); Jacobs Engineering (2/2007); LSA (2007, 2013)



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FIGURE B-8



Criterion 2.1 : San Bernardino Kangaroo Rat
 08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34.3
 EA 08-0F3200 (PN 0800000125)





LEGEND

 MCP Project Footprint	 Permanent Impacts to Riparian Habitat in Floodplain	 Permanent Impacts to San Jacinto River Alkali Communities	 Alkali Grassland - Permanent
 Bridge Placement	 Marsh	 Croplands - Permanent	 Alkali Grassland - Permanent Shadow
 FEMA 100-year Floodplain	 Riparian Scrub	 Croplands - Permanent Shadow	 Alkali Grassland - Permanent Fill
		 Croplands - Permanent Fill	 Fill Area for Ramona Expressway

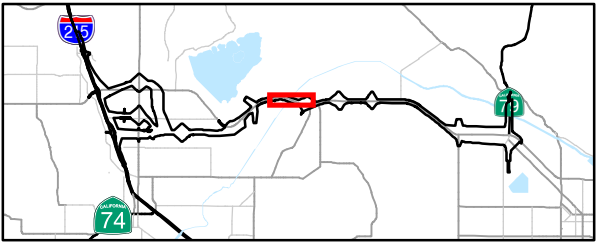
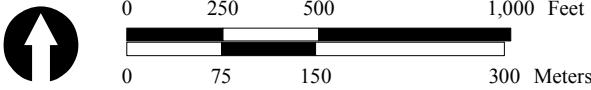


FIGURE B-9

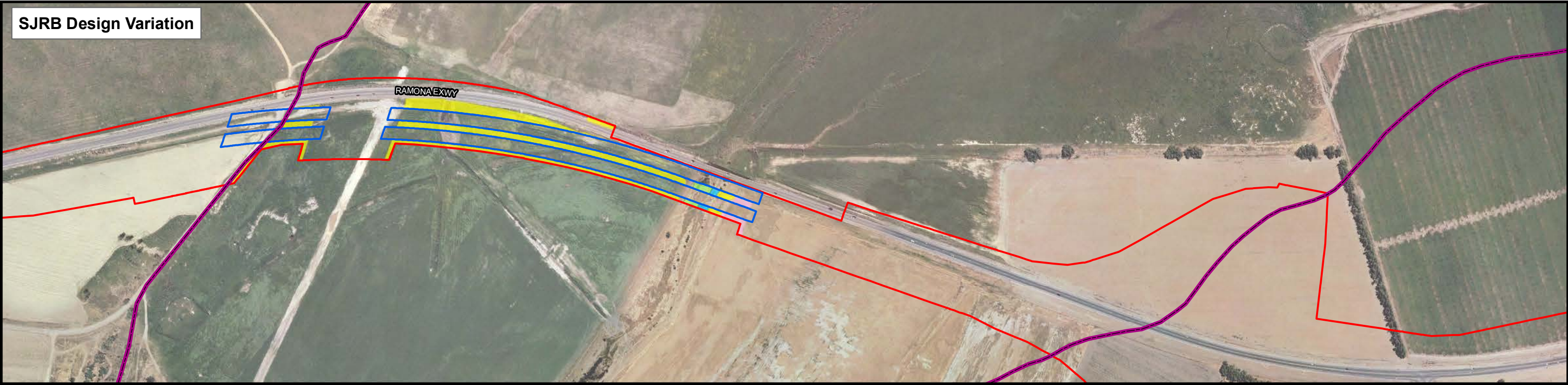
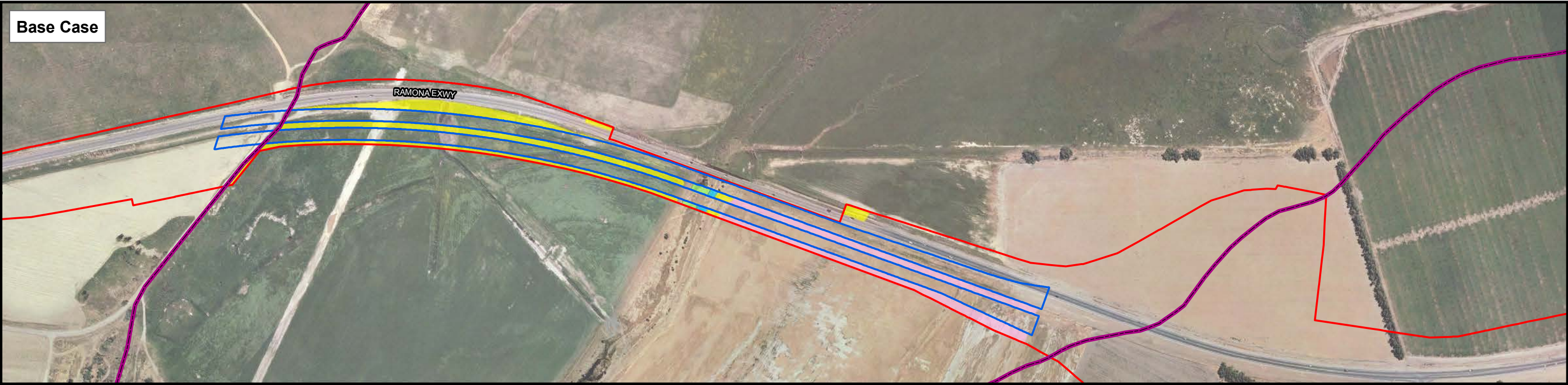
SOURCE: Eagle Aerial (3/2010); Jacobs Engineering (2/2007); LSA (2007, 2013)










Criterion 3.1: Permanent Impacts to Sensitive Plant Communities Affected at San Jacinto River-Lakeview

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34.3
EA 08-0F3200 (PN 0800000125)

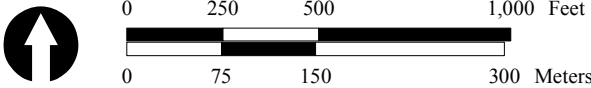




LEGEND

 MCP Project Footprint	Temporary Impacts to Riparian Habitat in Floodplain	Temporary Impacts to San Jacinto River Alkali Communities
 Bridge Placement	 Marsh	 Cropland
 FEMA 100-year Floodplain	 Riparian Scrub	 Alkali Grassland

SOURCE: Eagle Aerial (3/2010); Jacobs Engineering (2/2007); LSA (2007, 2013)



I:\CV531\GIS_Mod\Bio\LEDPA\SensitivePlantCommunitiesAffected_SJRB_Temp.mxd (12/18/2013)

Criterion 3.1: Temporary Impacts to Sensitive Plant Communities Affected at San Jacinto River-Lakeview

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34.3
EA 08-0F3200 (PN 0800000125)

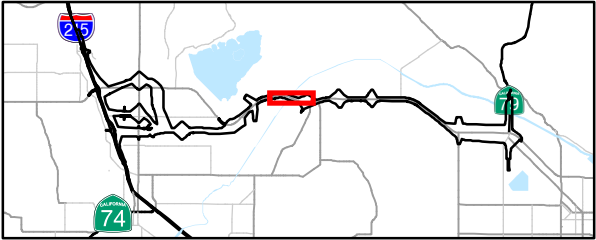
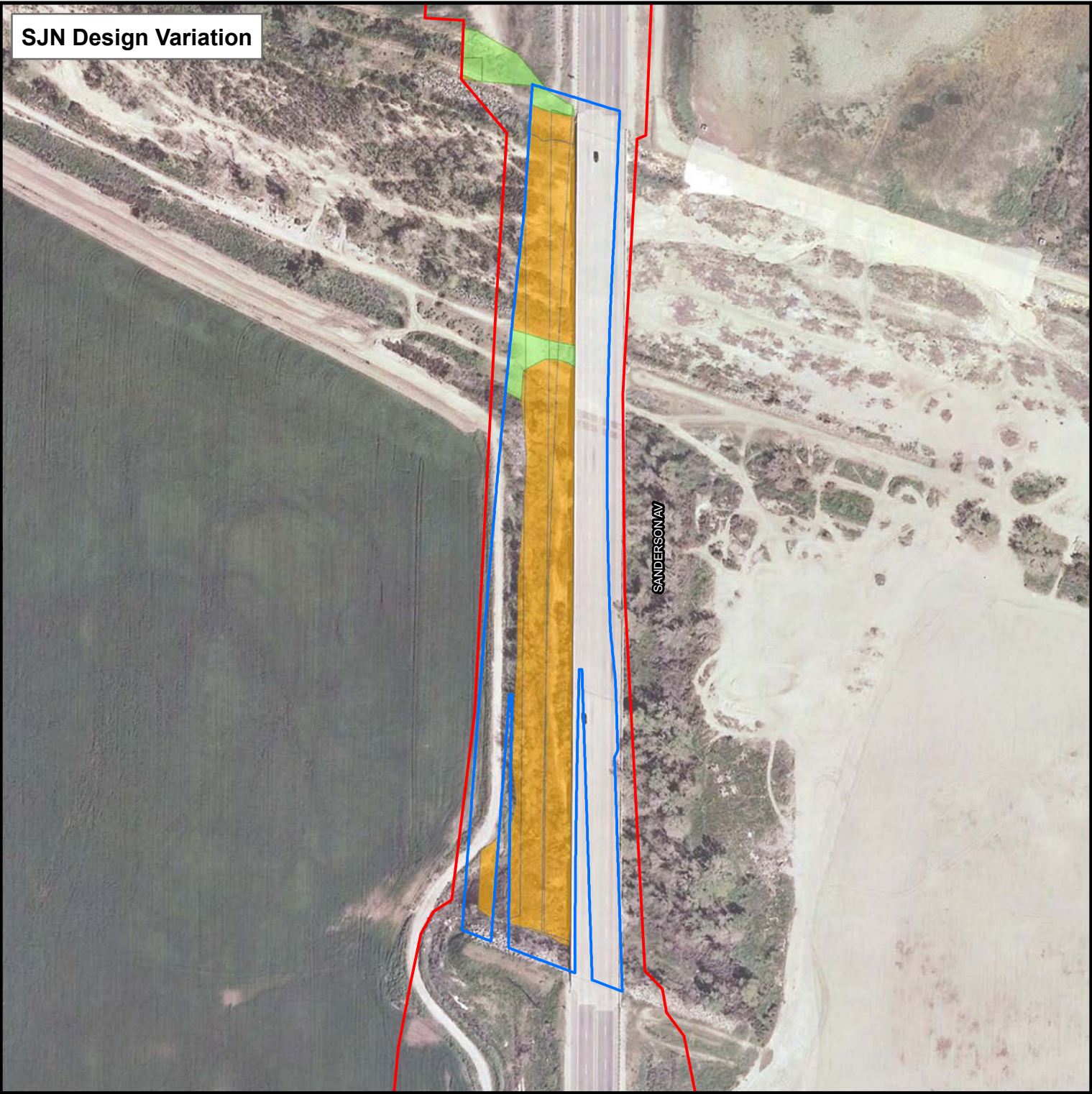
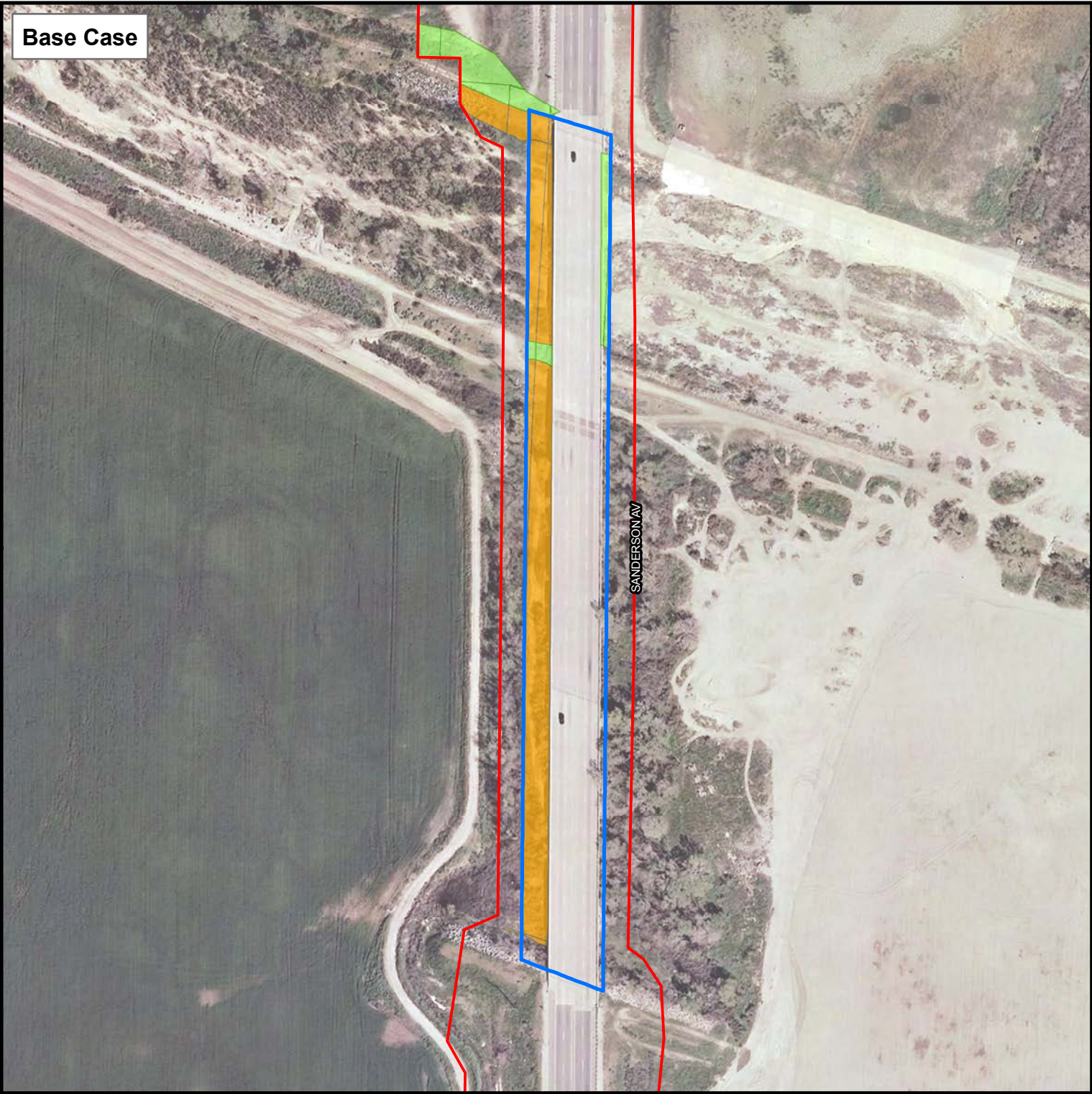


FIGURE B-10



LEGEND

 MCP SJN DV Project Footprint	Permanent Impacts to Riparian Habitat
 Bridge Placement	 Riparian Forest
	 Riparian Scrub

SOURCE: Eagle Aerial (3/2010); Jacobs Engineering (2/2007); LSA (2007, 2013)



I:\JCV531\GIS_Mod\Bio\LEDPA\SensitivePlantCommunitiesAffected_SR79SJN_Perm.mxd (12/18/2013)

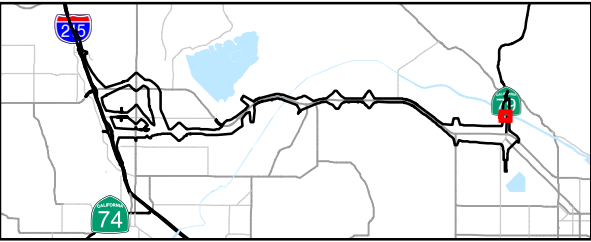
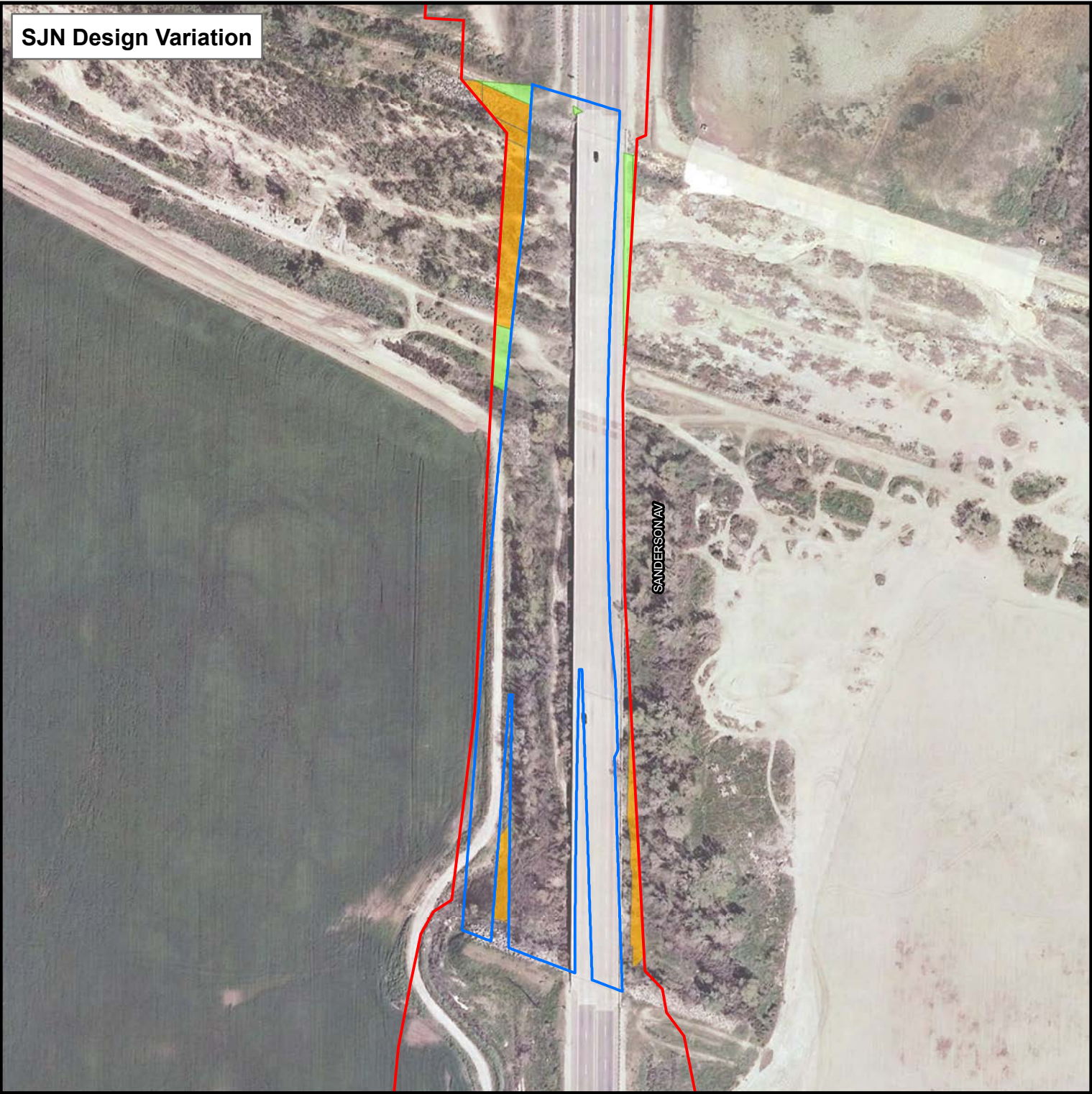
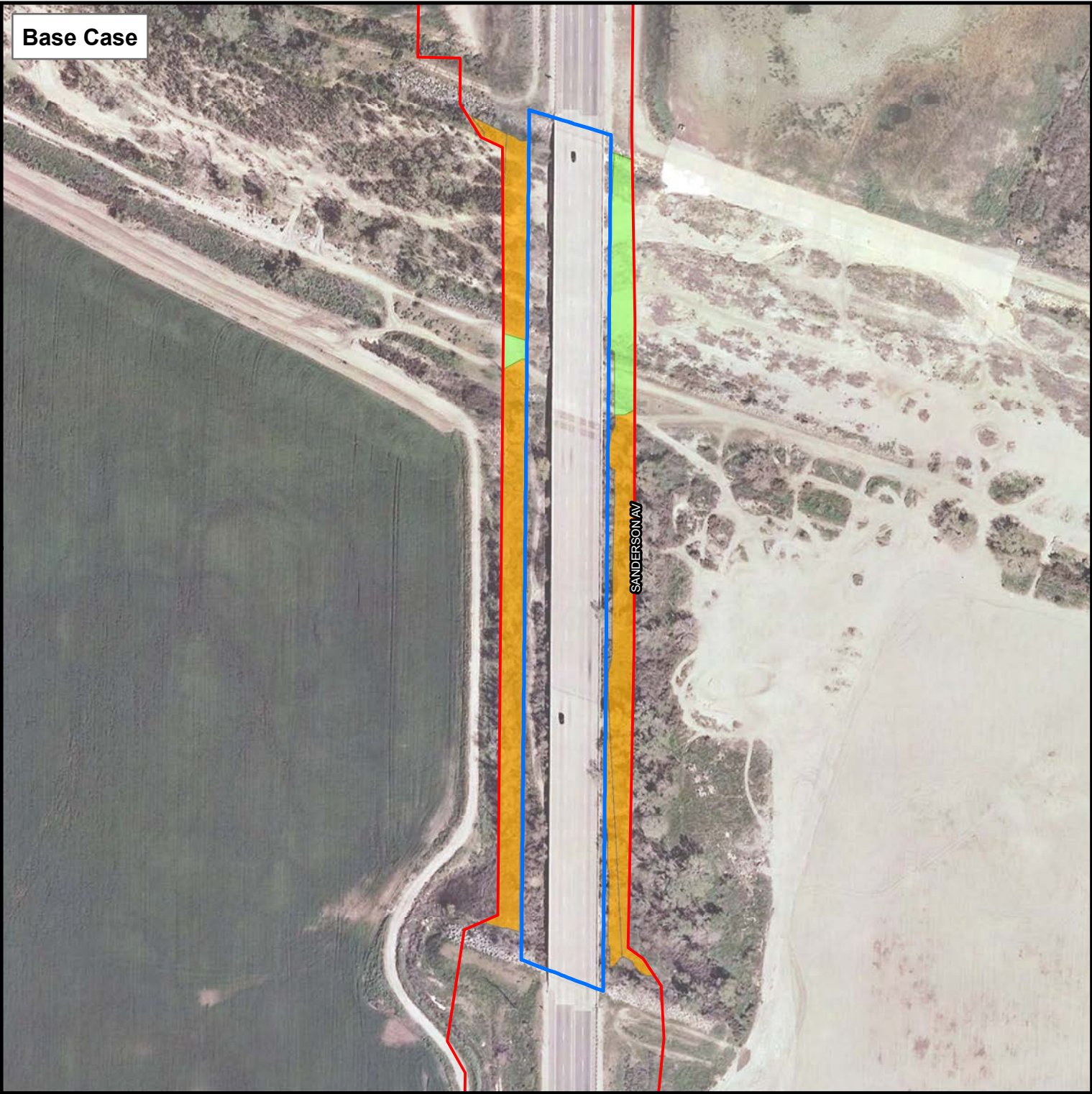


FIGURE B-11

Criterion 3.1: Permanent Impacts to Sensitive Plant Communities Affected at SR-79 Bridge/San Jacinto River

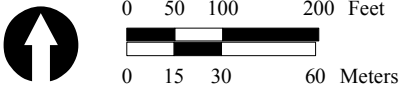
08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34.3
EA 08-0F3200 (PN 0800000125)





- LEGEND
- MCP SJN DV Project Footprint
 - Bridge Placement
 - Temporary Impacts to Riparian Habitat
 - Riparian Forest
 - Riparian Scrub

SOURCE: Eagle Aerial (3/2010); Jacobs Engineering (2/2007); LSA (2007, 2013)



I:\JCV531\GIS_Mod\Bio\LEDPA\SensitivePlantCommunitiesAffected_SR79SJN_Temp.mxd (12/18/2013)

Criterion 3.1: Temporary Impacts to Sensitive Plant Communities Affected at SR-79 Bridge/San Jacinto River

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34.3
EA 08-0F3200 (PN 0800000125)

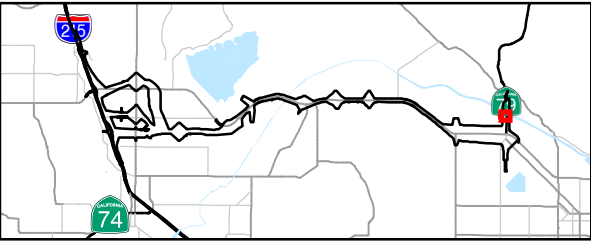
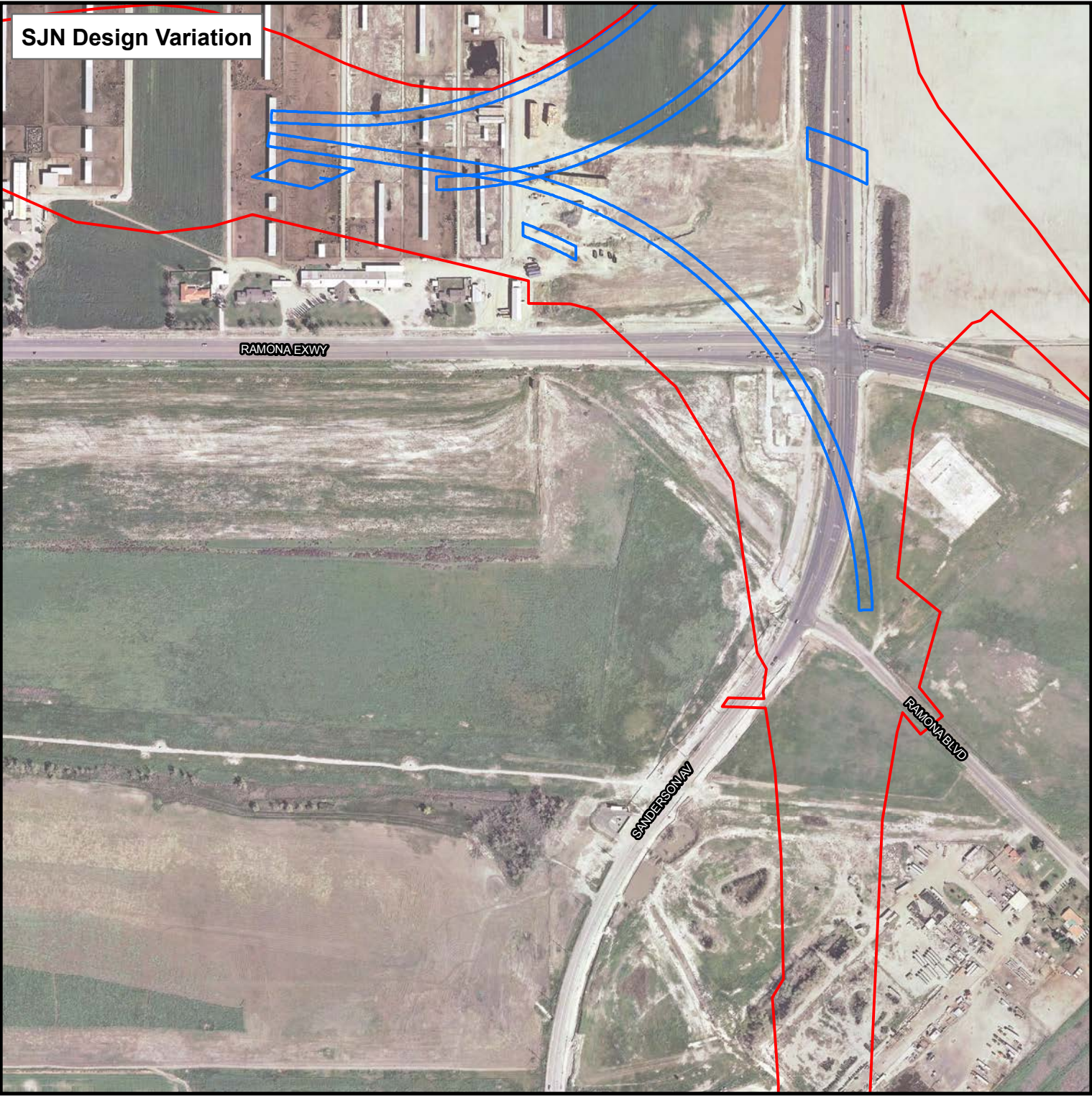
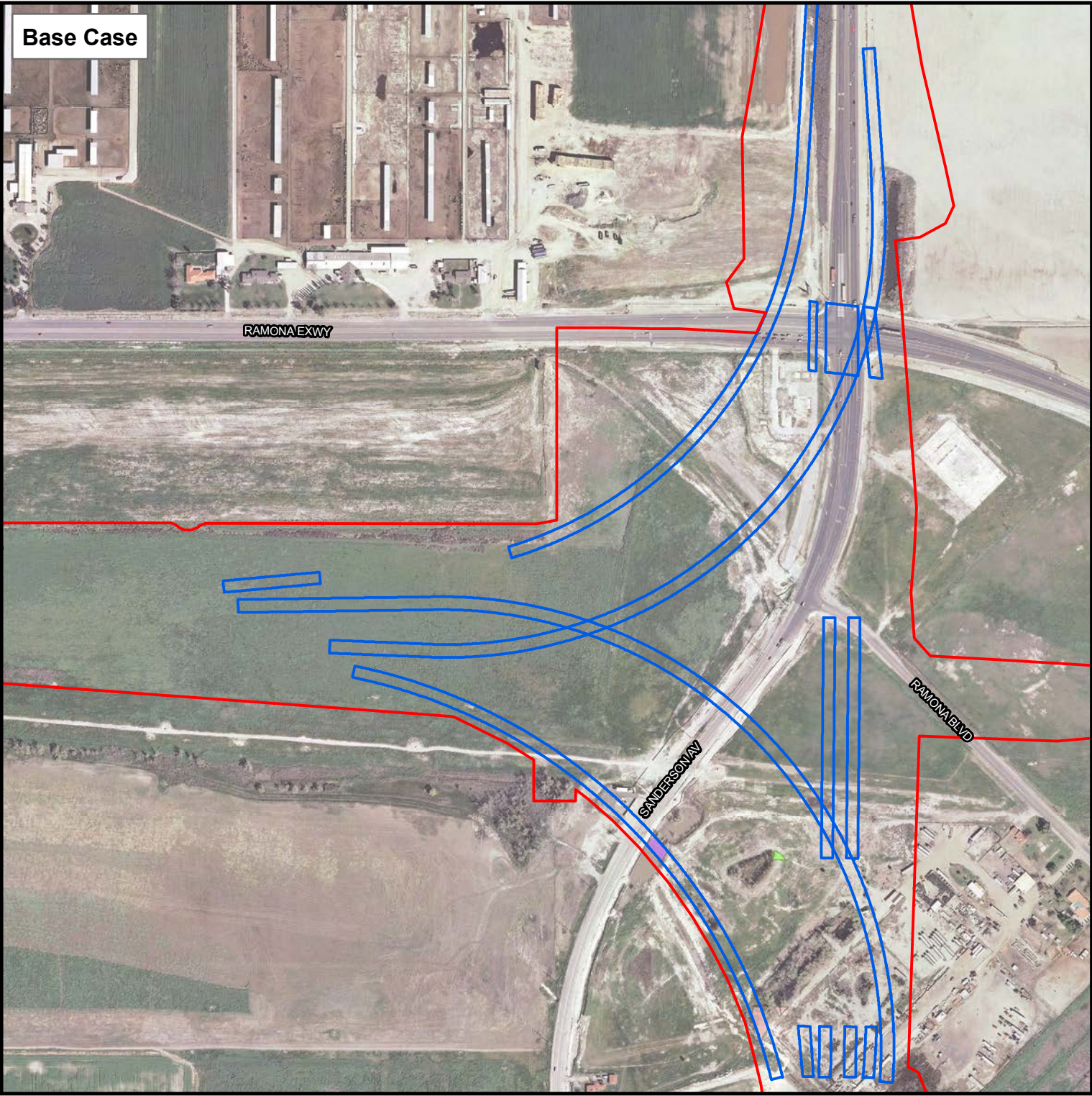


FIGURE B-12

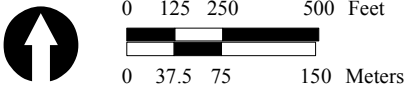




LEGEND

 MCP Project Footprint	Permanent Impacts to Riparian Habitat
 Bridge Placement	 Lake/Pond
	 Riparian Forest
	 Riparian Scrub

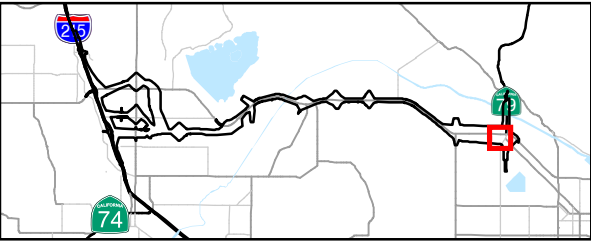
SOURCE: Eagle Aerial (3/2010); Jacobs Engineering (2/2007); LSA (2007, 2013)

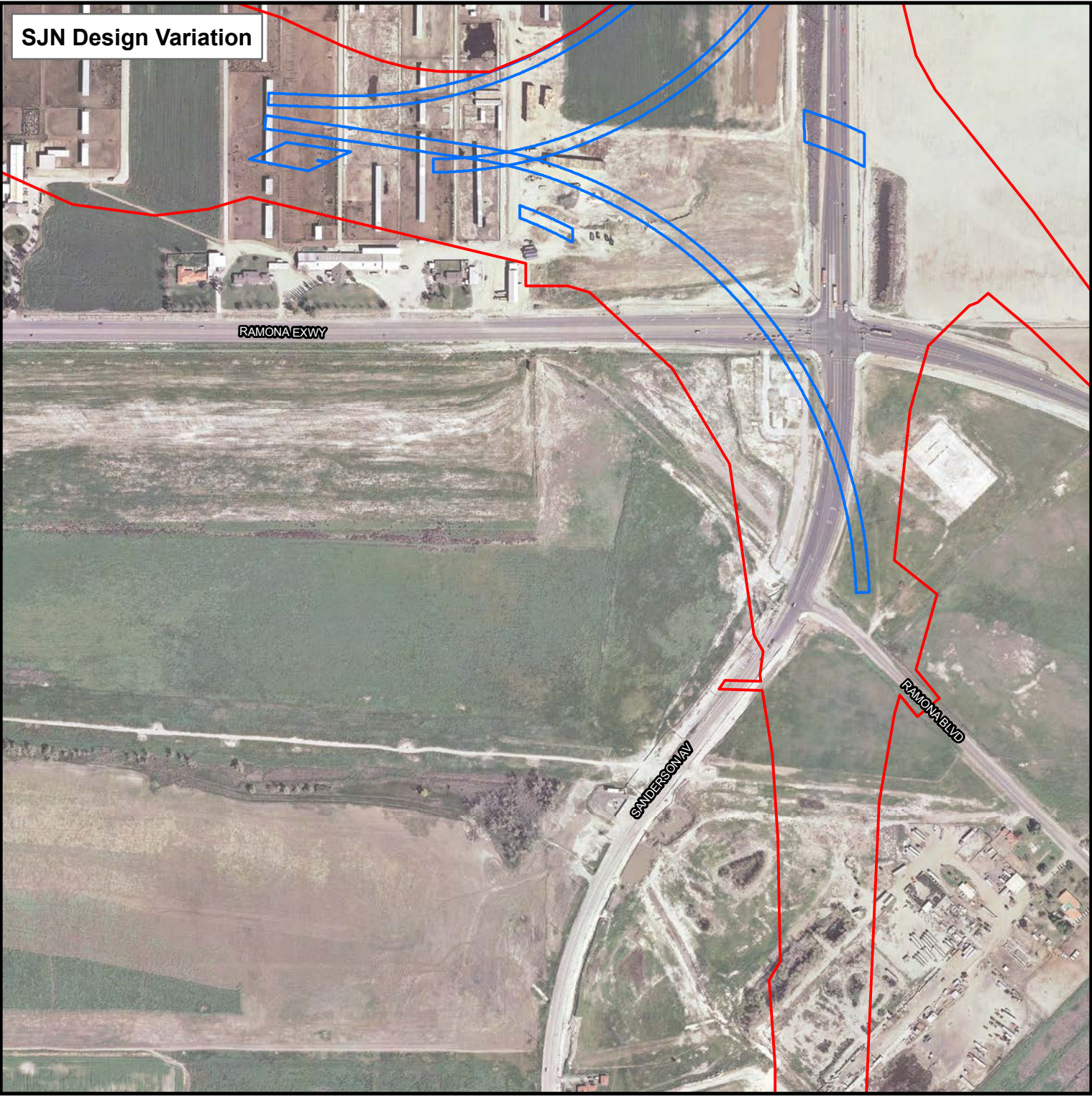
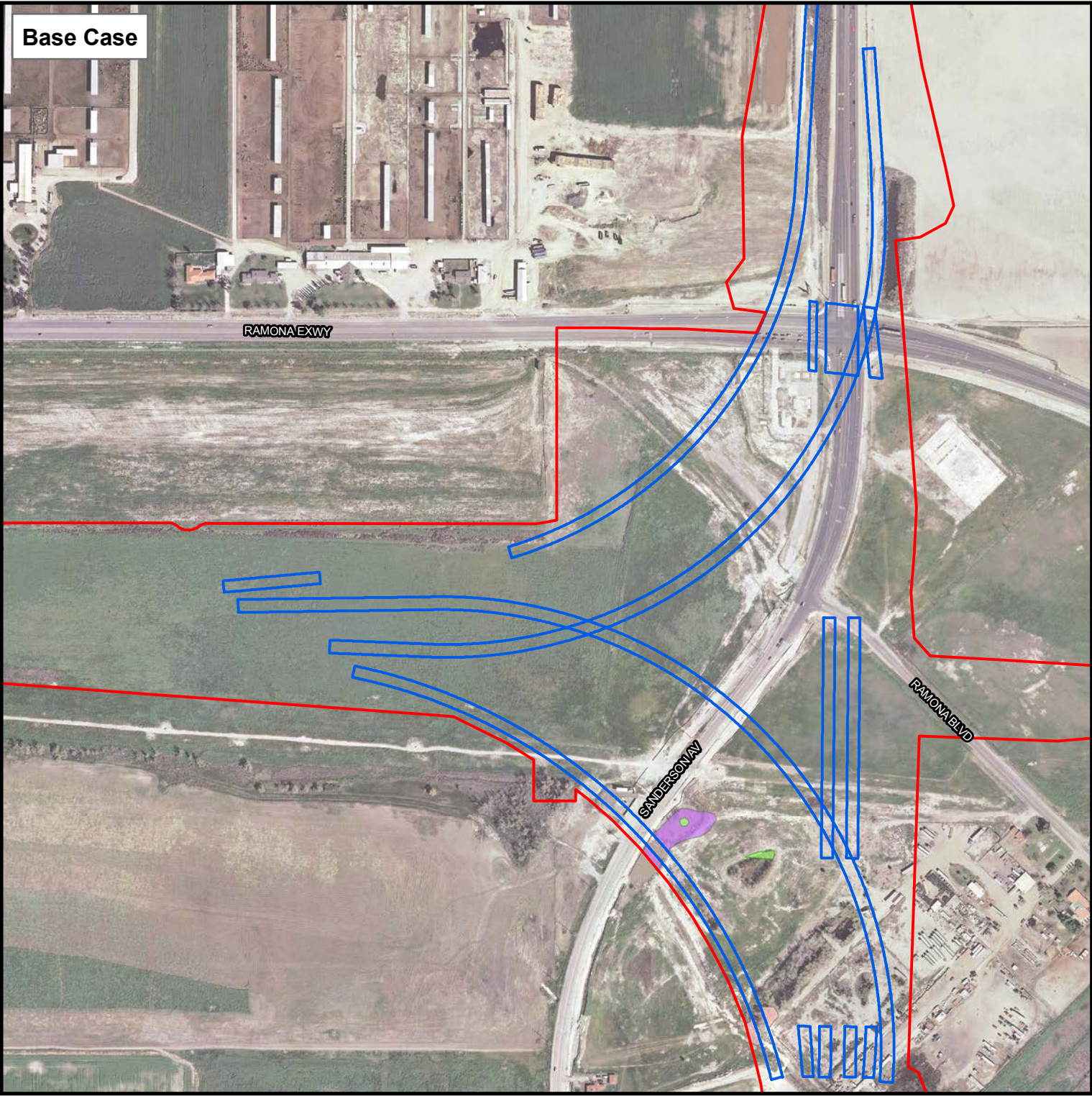


Criterion 3.1: Permanent Impacts to Sensitive Plant Communities Affected at MCP/SR-79 Interchange

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34.3
EA 08-0F3200 (PN 0800000125)

FIGURE B-13

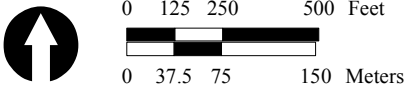




LEGEND

▬ MCP Project Footprint	Temporary Impacts to Riparian Habitat
▬ Bridge Placement	■ Lake/Pond
	■ Riparian Forest
	■ Riparian Scrub

SOURCE: Eagle Aerial (3/2010); Jacobs Engineering (2/2007); LSA (2007, 2013)



Criterion 3.1: Temporary Impacts to Sensitive Plant Communities Affected at MCP/SR-79 Interchange

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34.3
EA 08-0F3200 (PN 0800000125)

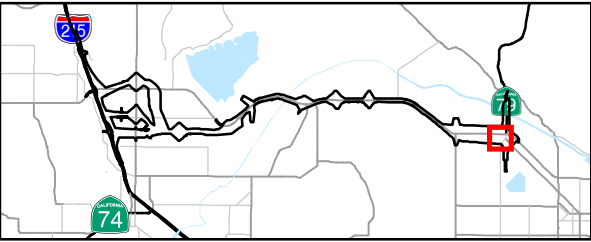
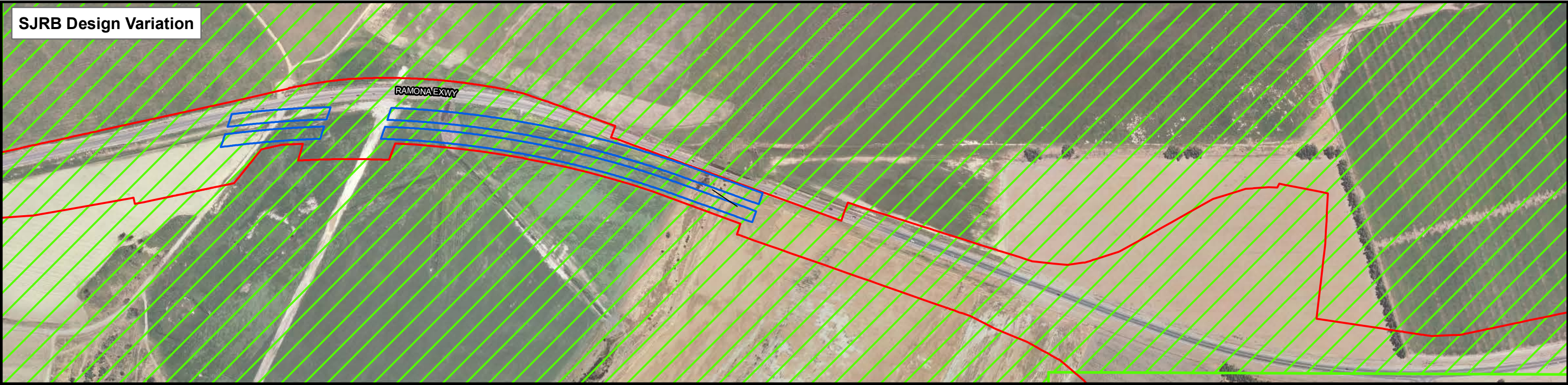
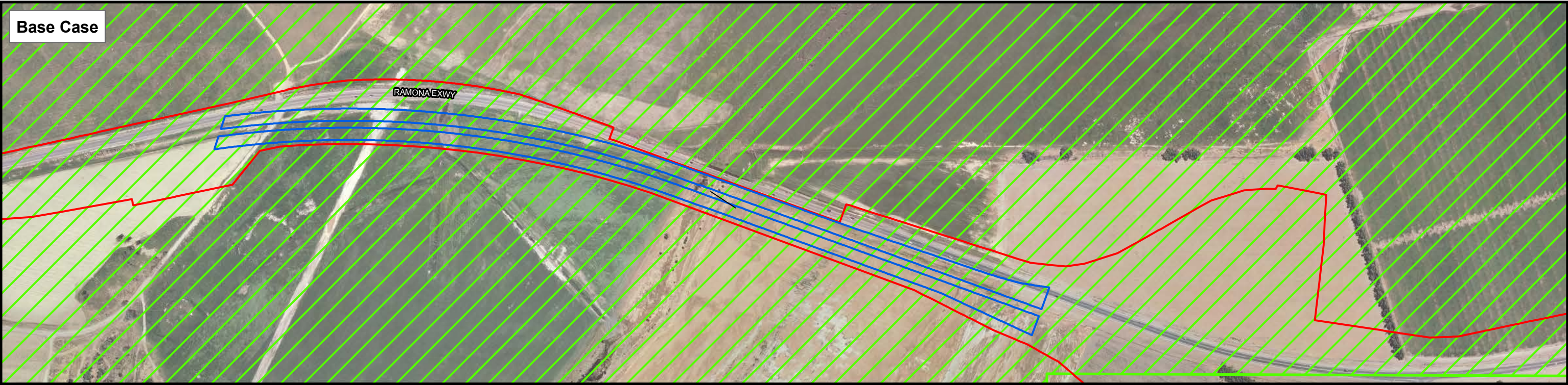
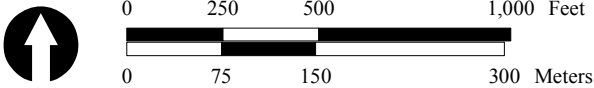


FIGURE B-14



- LEGEND
- MCP Project Footprint
 - Bridge Placement
 - MSHCP Criteria Area

SOURCE: Eagle Aerial (3/2010); Jacobs Engineering (2/2007); LSA (2007, 2013)



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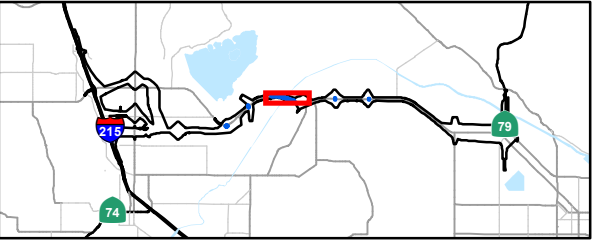
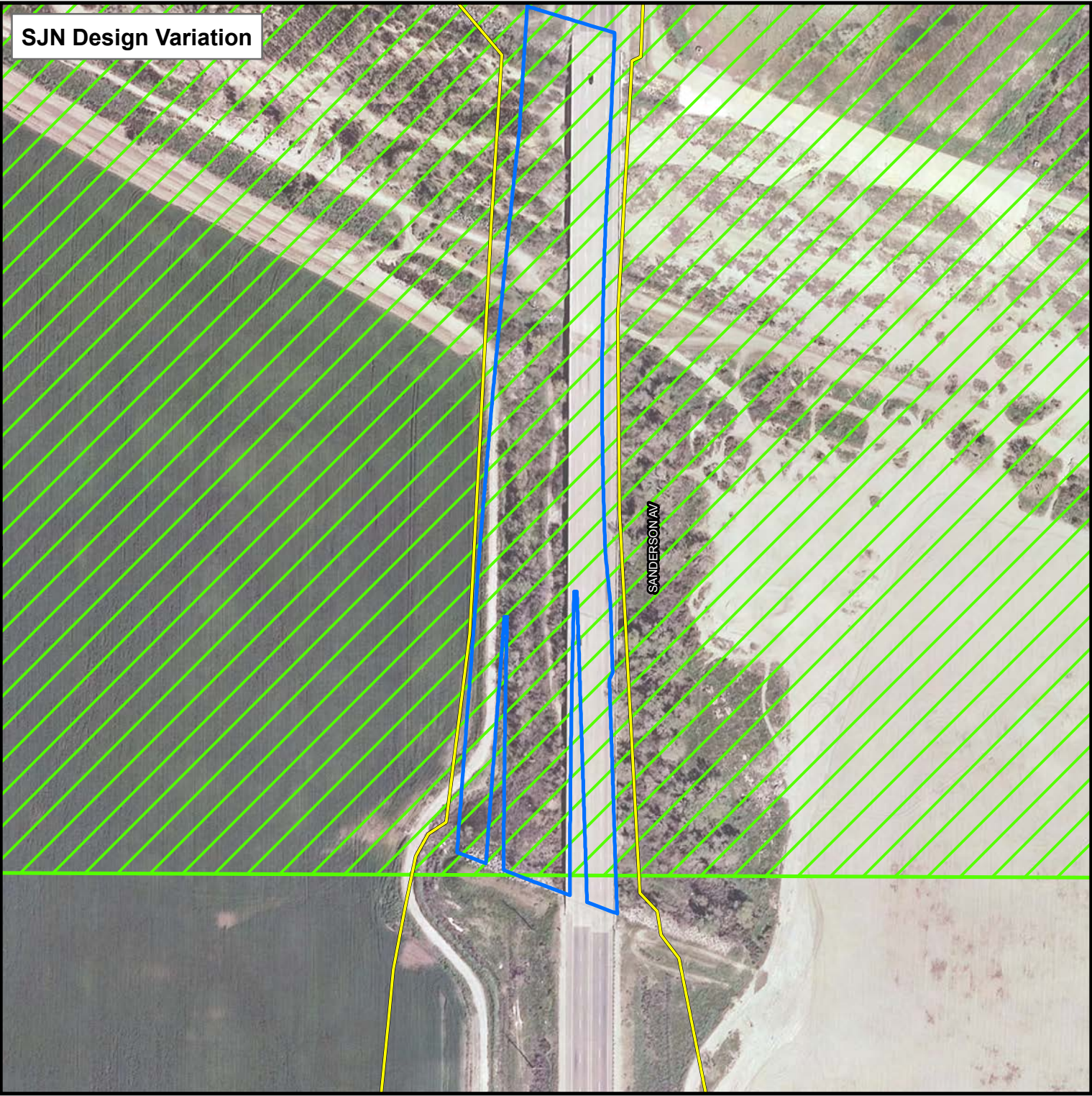
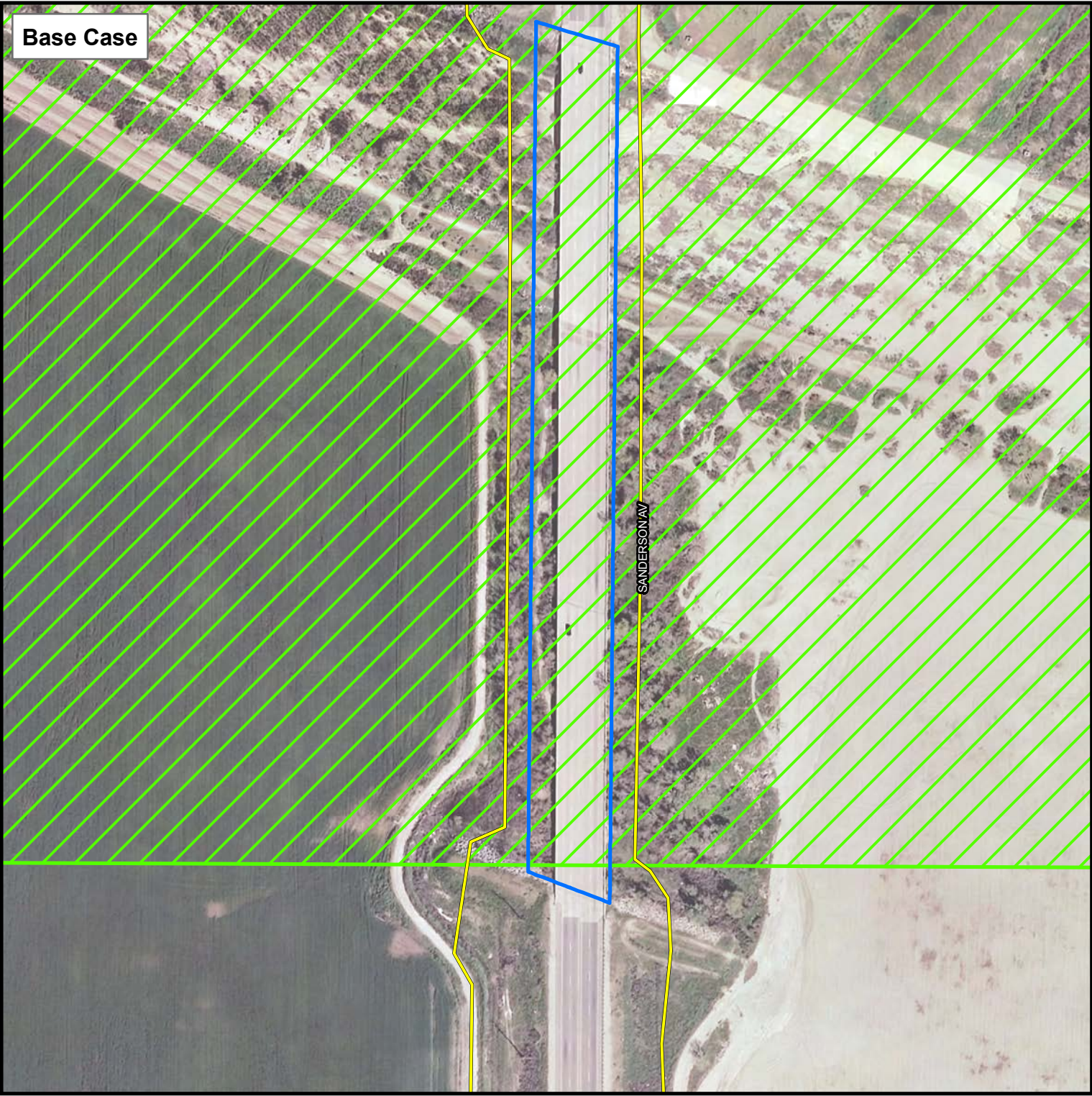


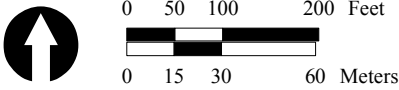
FIGURE B-15





- LEGEND
- Bridge Placement
 - Limits of Proposed Improvements
 - MSHCP Criteria Area

SOURCE: Eagle Aerial (3/2010); Jacobs Engineering (2/2007); LSA (2007, 2013)



I:\CV531\GIS_Mod\Bio\LEDPA\MSHCP_SR79BSJR_DV.mxd (12/4/2013)

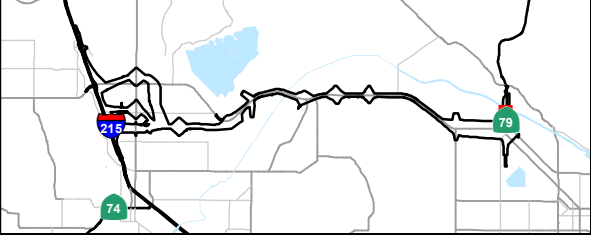


FIGURE B-16

Criterion 5.1: Impacts to MSHCP Criteria Area - SR-79 Bridge/San Jacinto River

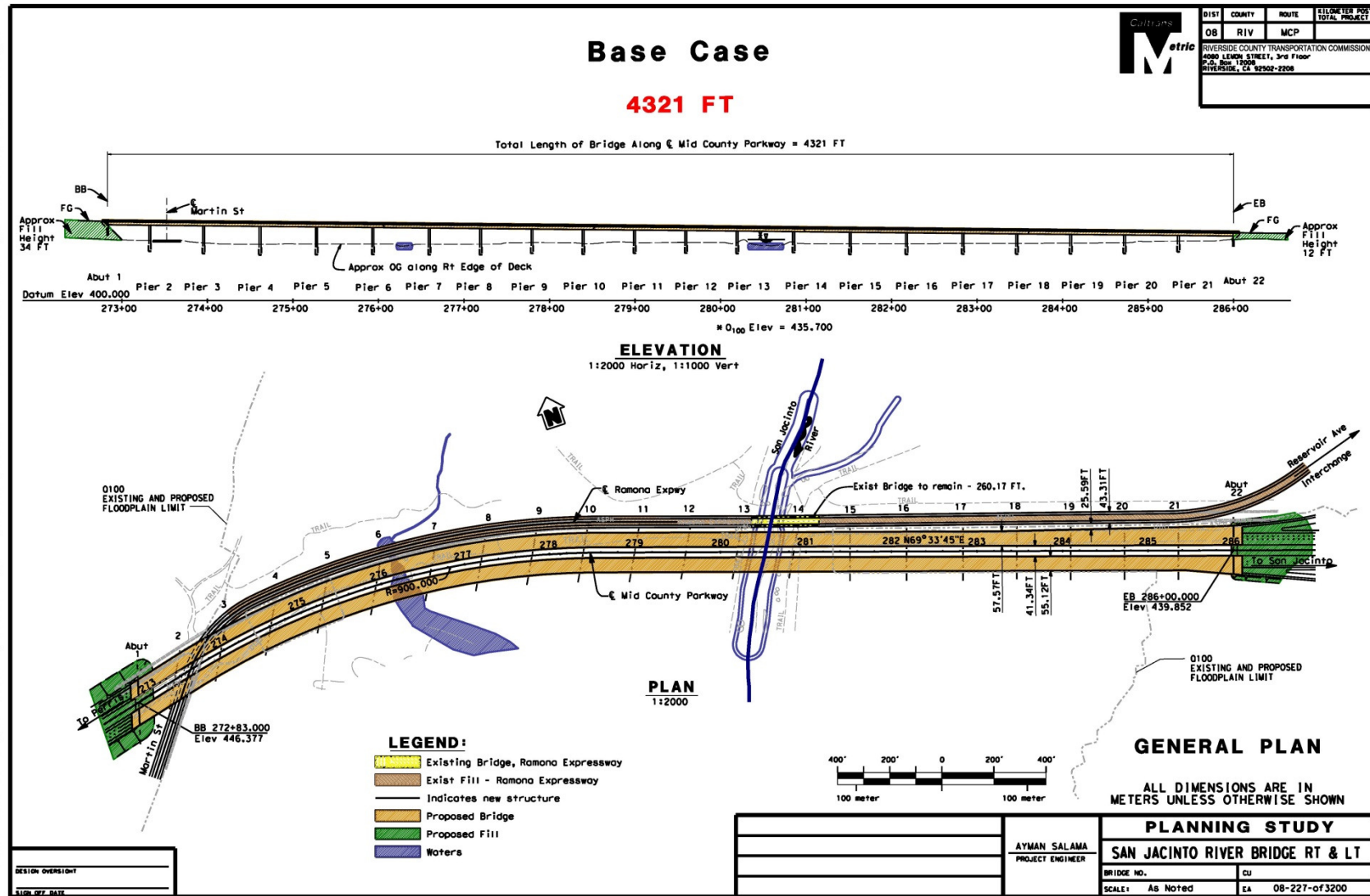
08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34.3
EA 08-0F3200 (PN 0800000125)



**SAN JACINTO RIVER BRIDGE
HYDROLOGY PRESENTATION
(NOVEMBER 20, 2013)**

SJR Bridge– Base Case

PREPARED FOR THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

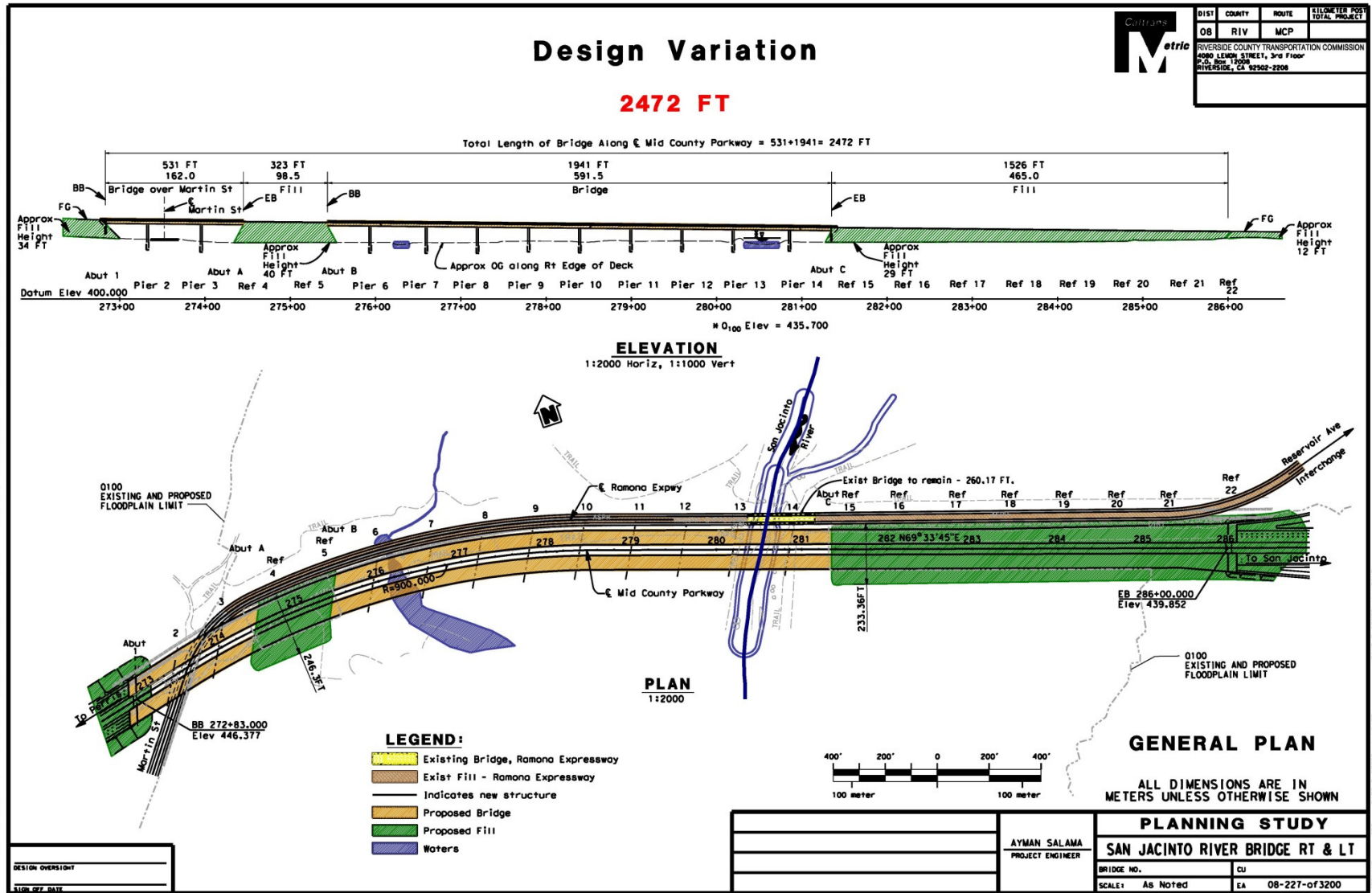


Base Case

DUDEK

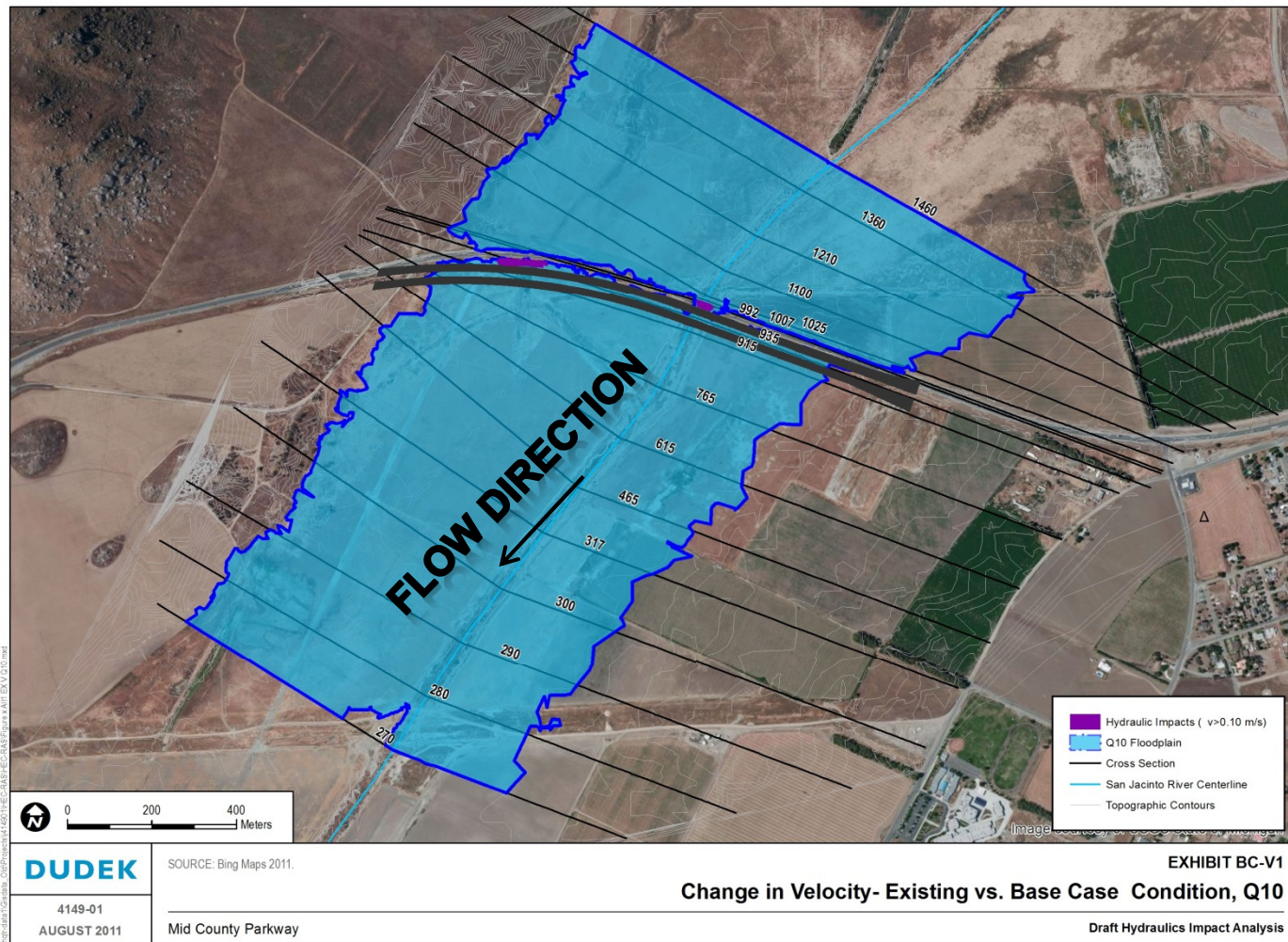
SJR Bridge– Design Variation

PREPARED FOR THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



SJR – Existing Vs. Base Case Comparison

$$Q_{10} = 127.4 \text{ cms (4,499 cfs)}$$

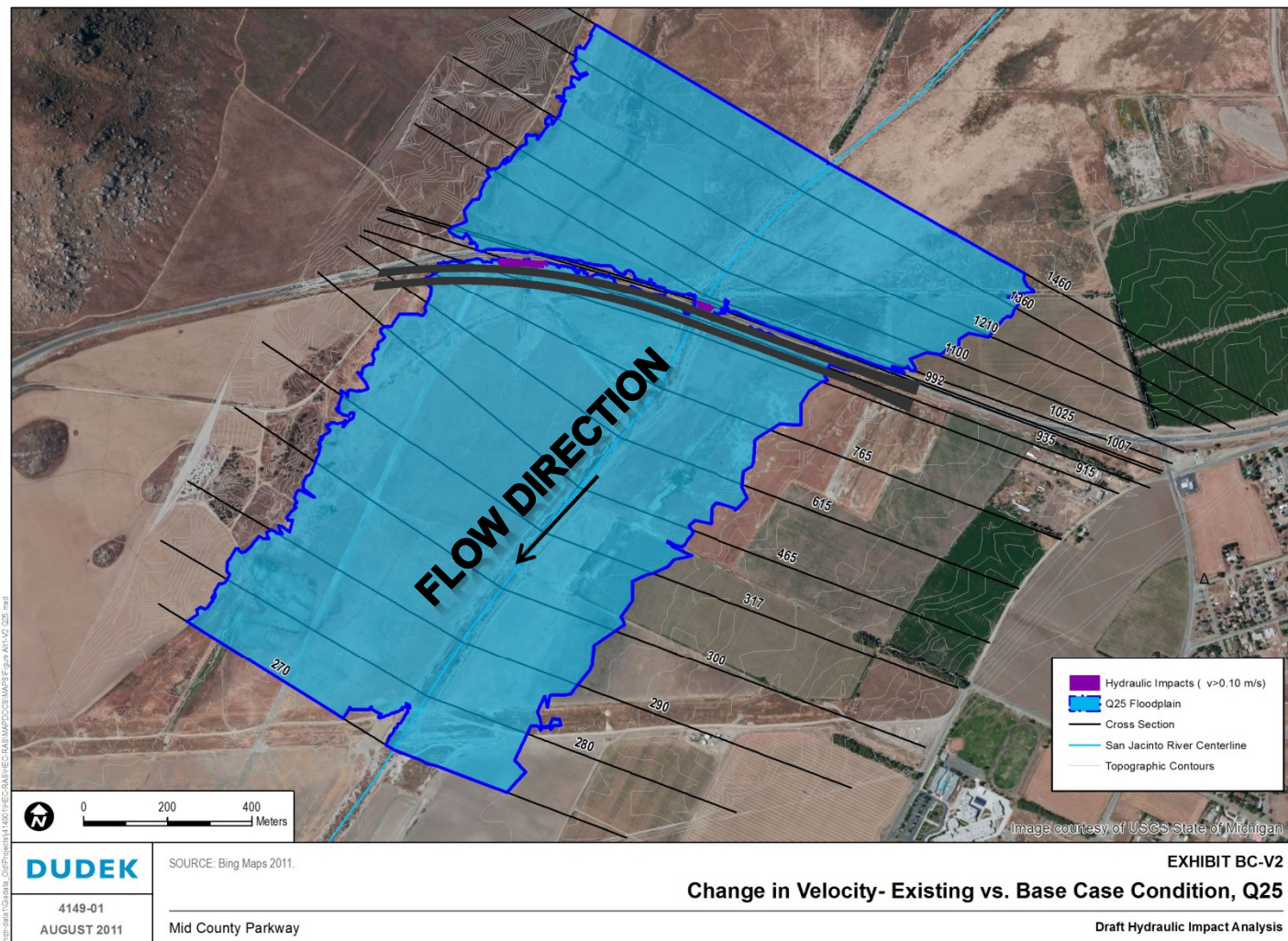


SJR – Existing Vs. Base Case Comparison

COMPARISON OF HEC-RAS MODEL RESULTS FOR SAN JACINTO RIVER AT PROPOSED HIGHWAY BRIDGE - EXISTING VS BASE CASE																					
PARAMETER	DEPTH (M)									VELOCITY (M/S)											
	PROPOSED			EXISTING			Δ			PROPOSED			EXISTING			Δ					
SECTION	10YR	25YR	100YR	10YR	25YR	100YR	10YR	25YR	100YR	10YR	25YR	100YR	10YR	25YR	100YR	10YR	25YR	100YR			
1460	1.7	2.6	3.4	1.7	2.6	3.4	0.0	0.0	0.0	0.1	0.1	0.3	0.1	0.1	0.3	0.0	0.0	0.0			
1360	2.3	3.2	4.0	2.3	3.2	4.0	0.0	0.0	0.0	0.1	0.2	0.4	0.1	0.2	0.4	0.0	0.0	0.0			
1210	2.3	3.3	4.0	2.3	3.3	4.0	0.0	0.0	0.0	0.2	0.2	0.5	0.2	0.2	0.5	0.0	0.0	0.0			
1100	2.3	3.2	4.0	2.3	3.2	4.0	0.0	0.0	0.0	0.3	0.4	0.9	0.3	0.4	0.9	0.0	0.0	0.0			
1025	2.4	3.3	4.0	2.4	3.3	4.0	0.0	0.0	0.0	0.8	1.0	1.5	0.8	1.0	1.5	0.0	0.0	0.0			
1007	2.3	3.2	3.9	2.3	3.2	3.9	0.0	0.0	0.0	1.3	1.7	2.2	1.3	1.7	2.2	0.0	0.0	0.0			
EX. BRIDGE	1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
BASE CASE BRIDGE	992	1.7	2.0	2.7	1.6	1.9	2.5	0.1	0.1	0.1	1.4	1.6	2.1	1.6	1.9	2.4	-0.2	-0.3			
	964	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	935	1.6	1.9	2.7	1.6	1.9	2.7	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.0			
	915	1.6	1.9	2.7	1.6	1.9	2.7	0.0	0.0	0.0	0.4	0.4	0.5	0.4	0.4	0.5	0.0	0.0			
	765	1.6	1.9	2.6	1.6	1.9	2.6	0.0	0.0	0.0	0.3	0.4	0.5	0.3	0.4	0.5	0.0	0.0			
	615	1.9	2.2	2.9	1.9	2.2	2.9	0.0	0.0	0.0	0.4	0.4	0.6	0.4	0.4	0.6	0.0	0.0			
	465	2.5	2.8	3.5	2.5	2.8	3.5	0.0	0.0	0.0	0.4	0.4	0.5	0.4	0.4	0.5	0.0	0.0			
	317	2.6	2.9	3.6	2.6	2.9	3.6	0.0	0.0	0.0	0.4	0.4	0.6	0.4	0.4	0.6	0.0	0.0			
	300	1.7	2.1	2.8	1.7	2.1	2.8	0.0	0.0	0.0	0.3	0.3	0.5	0.3	0.3	0.5	0.0	0.0			
	290	2.0	2.3	3.0	2.0	2.3	3.0	0.0	0.0	0.0	0.3	0.4	0.6	0.3	0.4	0.6	0.0	0.0			
280	1.7	2.1	2.7	1.7	2.1	2.7	0.0	0.0	0.0	0.3	0.4	0.7	0.3	0.4	0.7	0.0	0.0				
270	1.9	2.2	2.9	1.9	2.2	2.9	0.0	0.0	0.0	0.5	0.6	0.7	0.5	0.6	0.7	0.0	0.0				
ENTIRE MODEL																					
MAX=							0.1	0.1	0.1	ENTIRE MODEL											
MIN=							0.0	0.0	0.0	MAX=											
AVG=							0.0	0.0	0.0	MIN=											
DS OF PROPOSED BRIDGE																					
MAX=							0.1	0.1	0.1	DS OF PROPOSED BRIDGE											
MIN=							0.0	0.0	0.0	MAX=											
AVG=							0.0	0.0	0.0	MIN=											
AVG=																					

San Jacinto River – HEC RAS

$$Q_{25} = 274.7 \text{ cms (9,701 cfs)}$$

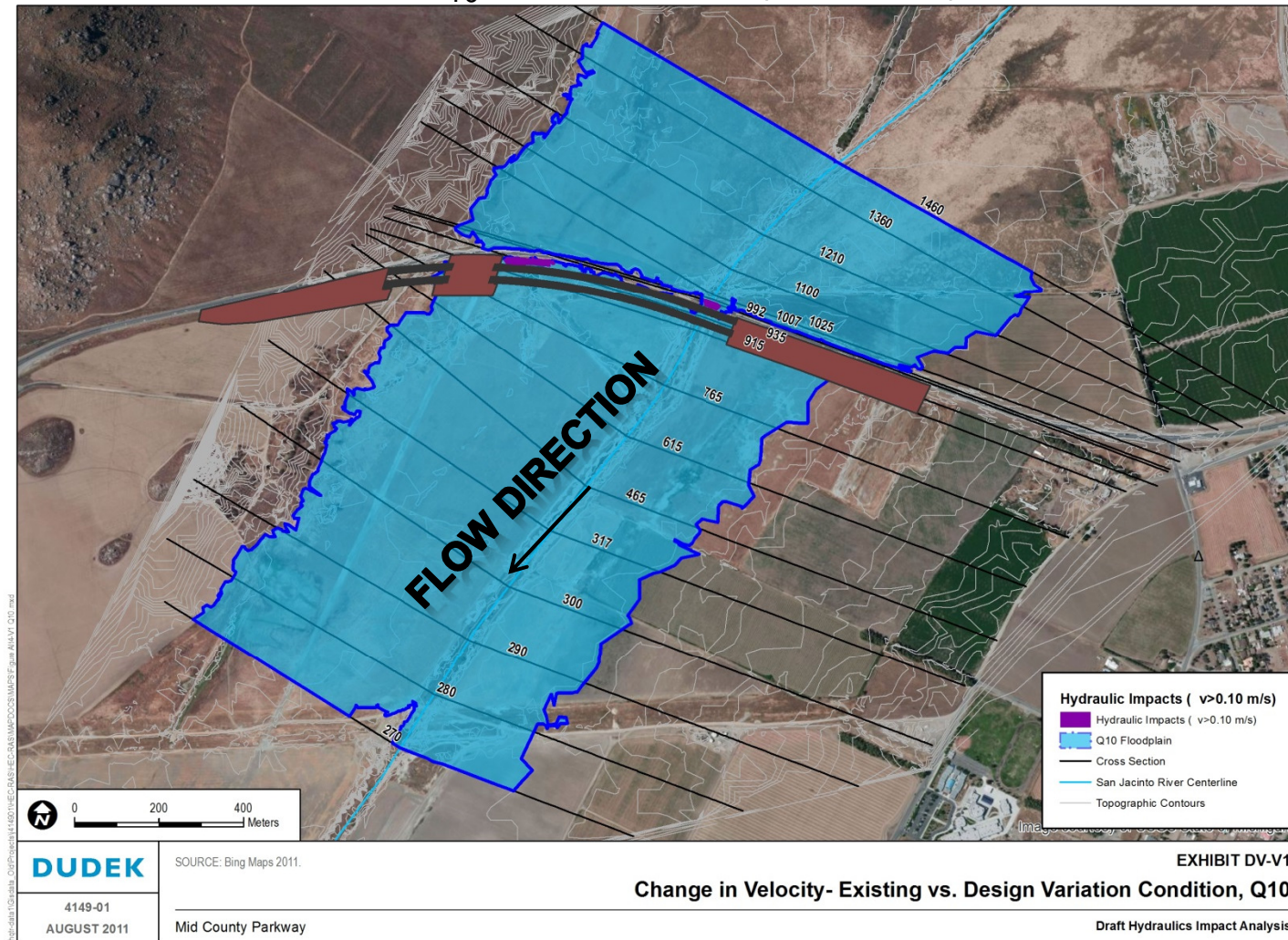


SJR – Existing Vs. Base Case Comparison

COMPARISON OF HEC-RAS MODEL RESULTS FOR SAN JACINTO RIVER AT PROPOSED HIGHWAY BRIDGE - EXISTING VS BASE CASE																					
PARAMETER	DEPTH (M)									VELOCITY (M/S)											
	PROPOSED			EXISTING			Δ			PROPOSED			EXISTING			Δ					
SECTION	10YR	25YR	100YR	10YR	25YR	100YR	10YR	25YR	100YR	10YR	25YR	100YR	10YR	25YR	100YR	10YR	25YR	100YR			
1460	1.7	2.6	3.4	1.7	2.6	3.4	0.0	0.0	0.0	0.1	0.1	0.3	0.1	0.1	0.3	0.0	0.0	0.0			
1360	2.3	3.2	4.0	2.3	3.2	4.0	0.0	0.0	0.0	0.1	0.2	0.4	0.1	0.2	0.4	0.0	0.0	0.0			
1210	2.3	3.3	4.0	2.3	3.3	4.0	0.0	0.0	0.0	0.2	0.2	0.5	0.2	0.2	0.5	0.0	0.0	0.0			
1100	2.3	3.2	4.0	2.3	3.2	4.0	0.0	0.0	0.0	0.3	0.4	0.9	0.3	0.4	0.9	0.0	0.0	0.0			
1025	2.4	3.3	4.0	2.4	3.3	4.0	0.0	0.0	0.0	0.8	1.0	1.5	0.8	1.0	1.5	0.0	0.0	0.0			
1007	2.3	3.2	3.9	2.3	3.2	3.9	0.0	0.0	0.0	1.3	1.7	2.2	1.3	1.7	2.2	0.0	0.0	0.0			
EX. BRIDGE	1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
BASE CASE BRIDGE	992	1.7	2.0	2.7	1.6	1.9	2.5	0.1	0.1	0.1	1.4	1.6	2.1	1.6	1.9	2.4	-0.2	-0.3			
	964	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	935	1.6	1.9	2.7	1.6	1.9	2.7	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.0			
	915	1.6	1.9	2.7	1.6	1.9	2.7	0.0	0.0	0.0	0.4	0.4	0.5	0.4	0.4	0.5	0.0	0.0			
	765	1.6	1.9	2.6	1.6	1.9	2.6	0.0	0.0	0.0	0.3	0.4	0.5	0.3	0.4	0.5	0.0	0.0			
	615	1.9	2.2	2.9	1.9	2.2	2.9	0.0	0.0	0.0	0.4	0.4	0.6	0.4	0.4	0.6	0.0	0.0			
	465	2.5	2.8	3.5	2.5	2.8	3.5	0.0	0.0	0.0	0.4	0.4	0.5	0.4	0.4	0.5	0.0	0.0			
	317	2.6	2.9	3.6	2.6	2.9	3.6	0.0	0.0	0.0	0.4	0.4	0.6	0.4	0.4	0.6	0.0	0.0			
	300	1.7	2.1	2.8	1.7	2.1	2.8	0.0	0.0	0.0	0.3	0.3	0.5	0.3	0.3	0.5	0.0	0.0			
	290	2.0	2.3	3.0	2.0	2.3	3.0	0.0	0.0	0.0	0.3	0.4	0.6	0.3	0.4	0.6	0.0	0.0			
280	1.7	2.1	2.7	1.7	2.1	2.7	0.0	0.0	0.0	0.3	0.4	0.7	0.3	0.4	0.7	0.0	0.0				
270	1.9	2.2	2.9	1.9	2.2	2.9	0.0	0.0	0.0	0.5	0.6	0.7	0.5	0.6	0.7	0.0	0.0				
ENTIRE MODEL																					
MAX=							0.1	0.1	0.1	ENTIRE MODEL											
MIN=							0.0	0.0	0.0	MAX=											
AVG=							0.0	0.0	0.0	MIN=											
DS OF PROPOSED BRIDGE																					
MAX=							0.1	0.1	0.1	AVG=											
MIN=							0.0	0.0	0.0	DS OF PROPOSED BRIDGE											
AVG=							0.0	0.0	0.0	MAX=											
ENTIRE MODEL																					
MAX=							0.0	0.0	0.0	MIN=											
MIN=							-0.2	-0.3	-0.3	AVG=											
AVG=							0.0	0.0	0.0	DS OF PROPOSED BRIDGE											
DS OF PROPOSED BRIDGE																					
MAX=							0.0	0.0	0.0	MAX=											
MIN=							-0.2	-0.3	-0.3	MIN=											
AVG=							0.0	0.0	0.0	AVG=											

SJR – Existing Vs. Design Var Comparison

$Q_{10} = 127.4 \text{ cms (4,499 cfs)}$

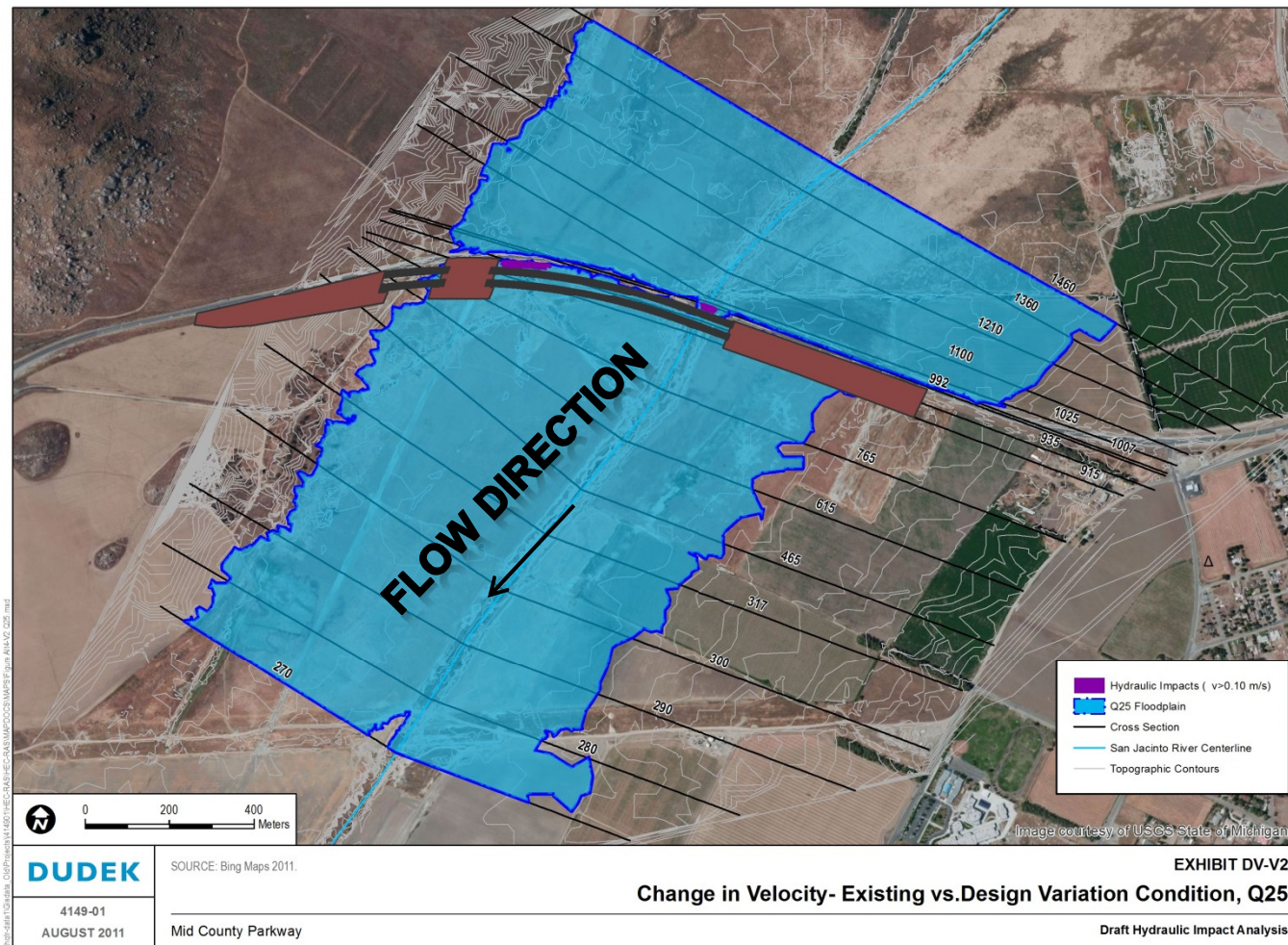


EXIST VS. SJBR DESIGN VARIATION

COMPARISON OF HEC-RAS MODEL RESULTS FOR SAN JACINTO RIVER AT PROPOSED HIGHWAY BRIDGE - EXISTING VS SJBR DESIGN VARIATION																						
PARAMETER	DEPTH (M)									VELOCITY (M/S)												
	PROPOSED			EXISTING			Δ			PROPOSED			EXISTING			Δ						
	SECTION	10YR	25YR	100YR	10YR	25YR	100YR	10YR	25YR	100YR	10YR	25YR	100YR	10YR	25YR	100YR	10YR	25YR	100YR			
EX. BRIDGE	1460	1.7	2.6	3.4	1.7	2.6	3.4	0.0	0.0	0.0	0.1	0.1	0.3	0.1	0.1	0.3	0.0	0.0	0.0			
	1360	2.3	3.2	4.0	2.3	3.2	4.0	0.0	0.0	0.0	0.1	0.2	0.4	0.1	0.2	0.4	0.0	0.0	0.0			
	1210	2.3	3.3	4.0	2.3	3.3	4.0	0.0	0.0	0.0	0.2	0.2	0.5	0.2	0.2	0.5	0.0	0.0	0.0			
	1100	2.3	3.2	4.0	2.3	3.2	4.0	0.0	0.0	0.0	0.3	0.4	0.9	0.3	0.4	0.9	0.0	0.0	0.0			
	1025	2.4	3.3	4.0	2.4	3.3	4.0	0.0	0.0	0.0	0.8	1.0	1.5	0.8	1.0	1.5	0.0	0.0	0.0			
	1007	2.3	3.2	4.0	2.3	3.2	3.9	0.0	0.0	0.1	1.3	1.7	2.1	1.3	1.7	2.2	0.0	0.0	-0.2			
	1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
SJBR DV BRIDGE	992	1.8	2.3	3.5	1.6	1.9	2.5	0.1	0.3	1.0	1.2	1.1	1.1	1.6	1.9	2.4	-0.4	-0.8	-1.3			
	964	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	935	1.6	1.9	2.7	1.6	1.9	2.7	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.0	0.0			
	915	1.6	1.9	2.7	1.6	1.9	2.7	0.0	0.0	0.0	0.4	0.4	0.5	0.4	0.4	0.5	0.0	0.0	0.0			
	765	1.6	1.9	2.6	1.6	1.9	2.6	0.0	0.0	0.0	0.3	0.4	0.5	0.3	0.4	0.5	0.0	0.0	0.0			
	615	1.9	2.2	2.9	1.9	2.2	2.9	0.0	0.0	0.0	0.4	0.4	0.6	0.4	0.4	0.6	0.0	0.0	0.0			
	465	2.5	2.8	3.5	2.5	2.8	3.5	0.0	0.0	0.0	0.4	0.4	0.5	0.4	0.4	0.5	0.0	0.0	0.0			
	317	2.6	2.9	3.6	2.6	2.9	3.6	0.0	0.0	0.0	0.4	0.4	0.6	0.4	0.4	0.6	0.0	0.0	0.0			
	300	1.7	2.1	2.8	1.7	2.1	2.8	0.0	0.0	0.0	0.3	0.3	0.5	0.3	0.3	0.5	0.0	0.0	0.0			
	290	2.0	2.3	3.0	2.0	2.3	3.0	0.0	0.0	0.0	0.3	0.4	0.6	0.3	0.4	0.6	0.0	0.0	0.0			
280	1.7	2.1	2.7	1.7	2.1	2.7	0.0	0.0	0.0	0.3	0.4	0.7	0.3	0.4	0.7	0.0	0.0	0.0				
270	1.9	2.2	2.9	1.9	2.2	2.9	0.0	0.0	0.0	0.5	0.6	0.7	0.5	0.6	0.7	0.0	0.0	0.0				
		ENTIRE MODEL									ENTIRE MODEL											
		MAX=			0.1			0.3			1.0			0.0			0.0			0.0		
		MIN=			0.0			0.0			0.0			-0.4			-0.8			-1.3		
		AVG=			0.0			0.0			0.1			0.0			0.0			-0.1		
		DS OF PROPOSED BRIDGE									DS OF PROPOSED BRIDGE											
		MAX=			0.1			0.3			1.0			0.0			0.0			0.0		
		MIN=			0.0			0.0			0.0			-0.4			-0.8			-1.3		
		AVG=			0.0			0.0			0.1			0.0			-0.1			-0.1		

SJR – Existing Vs. Design Var Comparison

$$Q_{25} = 274.7 \text{ cms (9,701 cfs)}$$

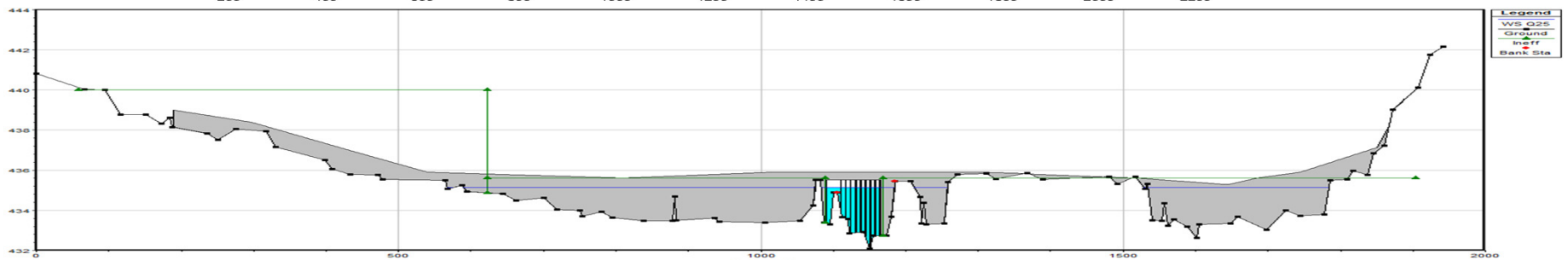
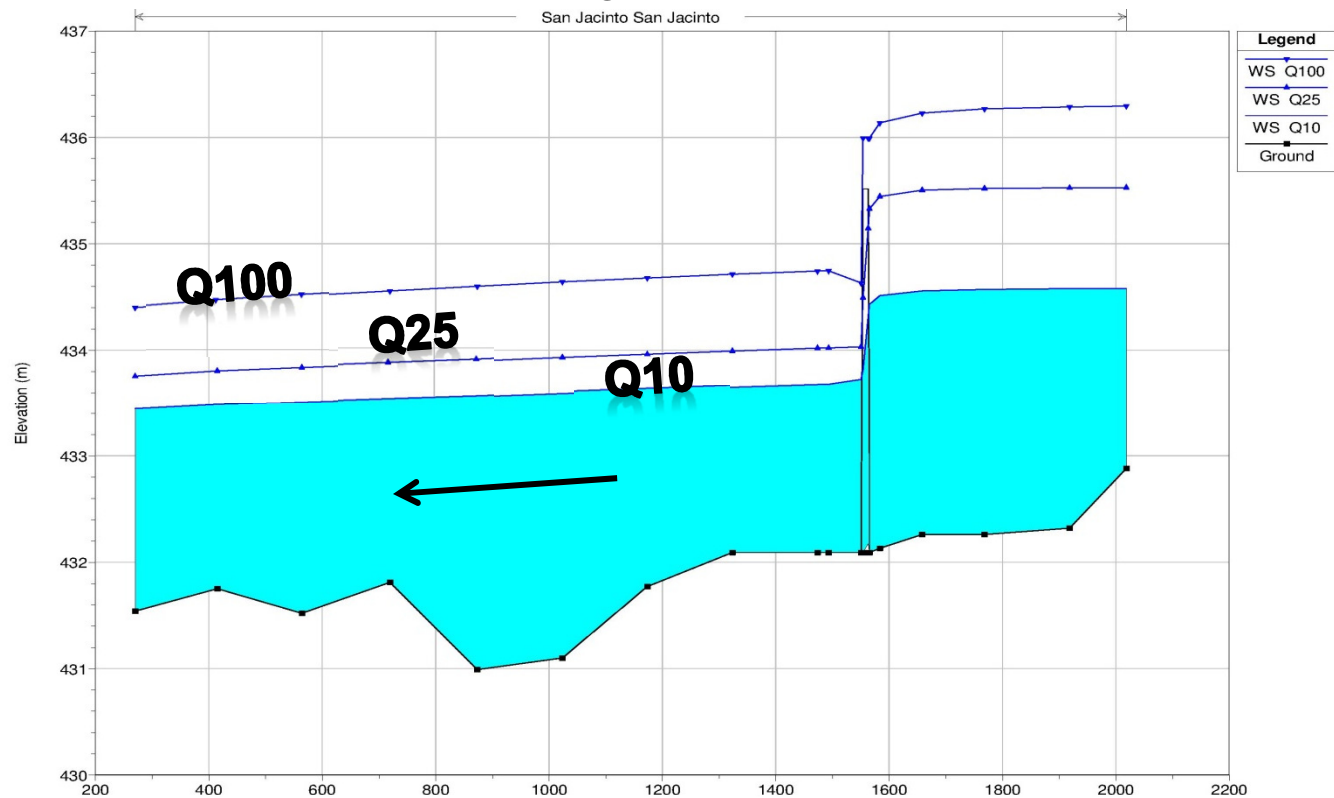


EXIST VS. SJBR DESIGN VARIATION

COMPARISON OF HEC-RAS MODEL RESULTS FOR SAN JACINTO RIVER AT PROPOSED HIGHWAY BRIDGE - EXISTING VS SJBR DESIGN VARIATION																			
PARAMETER	DEPTH (M)									VELOCITY (M/S)									
	PROPOSED			EXISTING			Δ			PROPOSED			EXISTING			Δ			
	SECTION	10YR	25YR	100YR	10YR	25YR	100YR	10YR	25YR	100YR	10YR	25YR	100YR	10YR	25YR	100YR	10YR	25YR	100YR
EX. BRIDGE	1460	1.7	2.6	3.4	1.7	2.6	3.4	0.0	0.0	0.0	0.1	0.1	0.3	0.1	0.1	0.3	0.0	0.0	0.0
	1360	2.3	3.2	4.0	2.3	3.2	4.0	0.0	0.0	0.0	0.1	0.2	0.4	0.1	0.2	0.4	0.0	0.0	0.0
	1210	2.3	3.3	4.0	2.3	3.3	4.0	0.0	0.0	0.0	0.2	0.2	0.5	0.2	0.2	0.5	0.0	0.0	0.0
	1100	2.3	3.2	4.0	2.3	3.2	4.0	0.0	0.0	0.0	0.3	0.4	0.9	0.3	0.4	0.9	0.0	0.0	0.0
	1025	2.4	3.3	4.0	2.4	3.3	4.0	0.0	0.0	0.0	0.8	1.0	1.5	0.8	1.0	1.5	0.0	0.0	0.0
	1007	2.3	3.2	4.0	2.3	3.2	3.9	0.0	0.0	0.1	1.3	1.7	2.1	1.3	1.7	2.2	0.0	0.0	-0.2
SJBR DV BRIDGE	1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	992	1.8	2.3	3.5	1.6	1.9	2.5	0.1	0.3	1.0	1.2	1.1	1.1	1.6	1.9	2.4	-0.4	-0.8	-1.3
	964	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	935	1.6	1.9	2.7	1.6	1.9	2.7	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.0	0.0
	915	1.6	1.9	2.7	1.6	1.9	2.7	0.0	0.0	0.0	0.4	0.4	0.5	0.4	0.4	0.5	0.0	0.0	0.0
	765	1.6	1.9	2.6	1.6	1.9	2.6	0.0	0.0	0.0	0.3	0.4	0.5	0.3	0.4	0.5	0.0	0.0	0.0
	615	1.9	2.2	2.9	1.9	2.2	2.9	0.0	0.0	0.0	0.4	0.4	0.6	0.4	0.4	0.6	0.0	0.0	0.0
	465	2.5	2.8	3.5	2.5	2.8	3.5	0.0	0.0	0.0	0.4	0.4	0.5	0.4	0.4	0.5	0.0	0.0	0.0
	317	2.6	2.9	3.6	2.6	2.9	3.6	0.0	0.0	0.0	0.4	0.4	0.6	0.4	0.4	0.6	0.0	0.0	0.0
	300	1.7	2.1	2.8	1.7	2.1	2.8	0.0	0.0	0.0	0.3	0.3	0.5	0.3	0.3	0.5	0.0	0.0	0.0
	290	2.0	2.3	3.0	2.0	2.3	3.0	0.0	0.0	0.0	0.3	0.4	0.6	0.3	0.4	0.6	0.0	0.0	0.0
	280	1.7	2.1	2.7	1.7	2.1	2.7	0.0	0.0	0.0	0.3	0.4	0.7	0.3	0.4	0.7	0.0	0.0	0.0
	270	1.9	2.2	2.9	1.9	2.2	2.9	0.0	0.0	0.0	0.5	0.6	0.7	0.5	0.6	0.7	0.0	0.0	0.0
ENTIRE MODEL		MAX=	0.1	0.3	1.0														
		MIN=	0.0	0.0	0.0														
		AVG=	0.0	0.0	0.1														
DS OF PROPOSED BRIDGE		MAX=	0.1	0.3	1.0														
		MIN=	0.0	0.0	0.0														
		AVG=	0.0	0.0	0.1														
ENTIRE MODEL		MAX=	0.0	0.0	0.0														
		MIN=	-0.4	-0.8	-1.3														
		AVG=	0.0	0.0	-0.1														
DS OF PROPOSED BRIDGE		MAX=	0.0	0.0	0.0														
		MIN=	-0.4	-0.8	-1.3														
		AVG=	0.0	-0.1	-0.1														

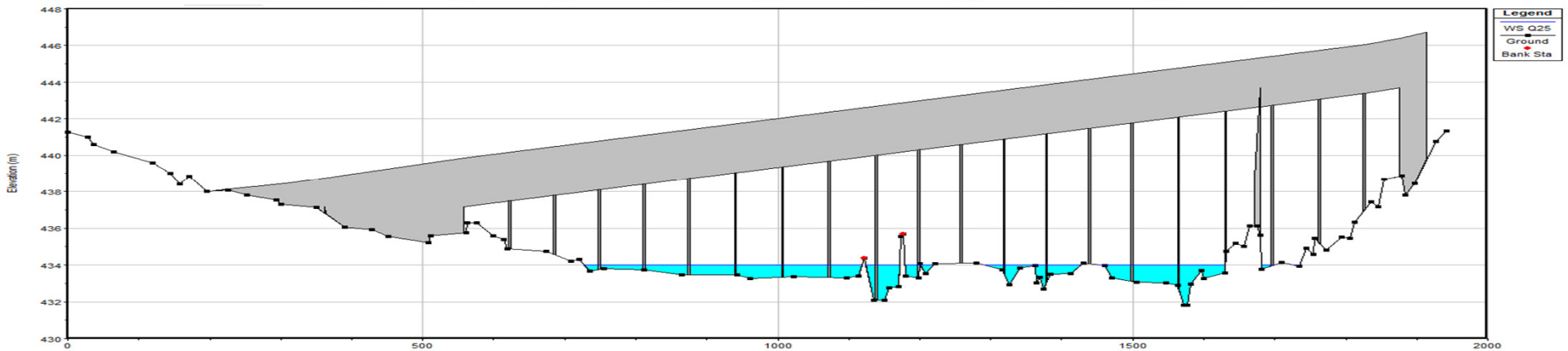
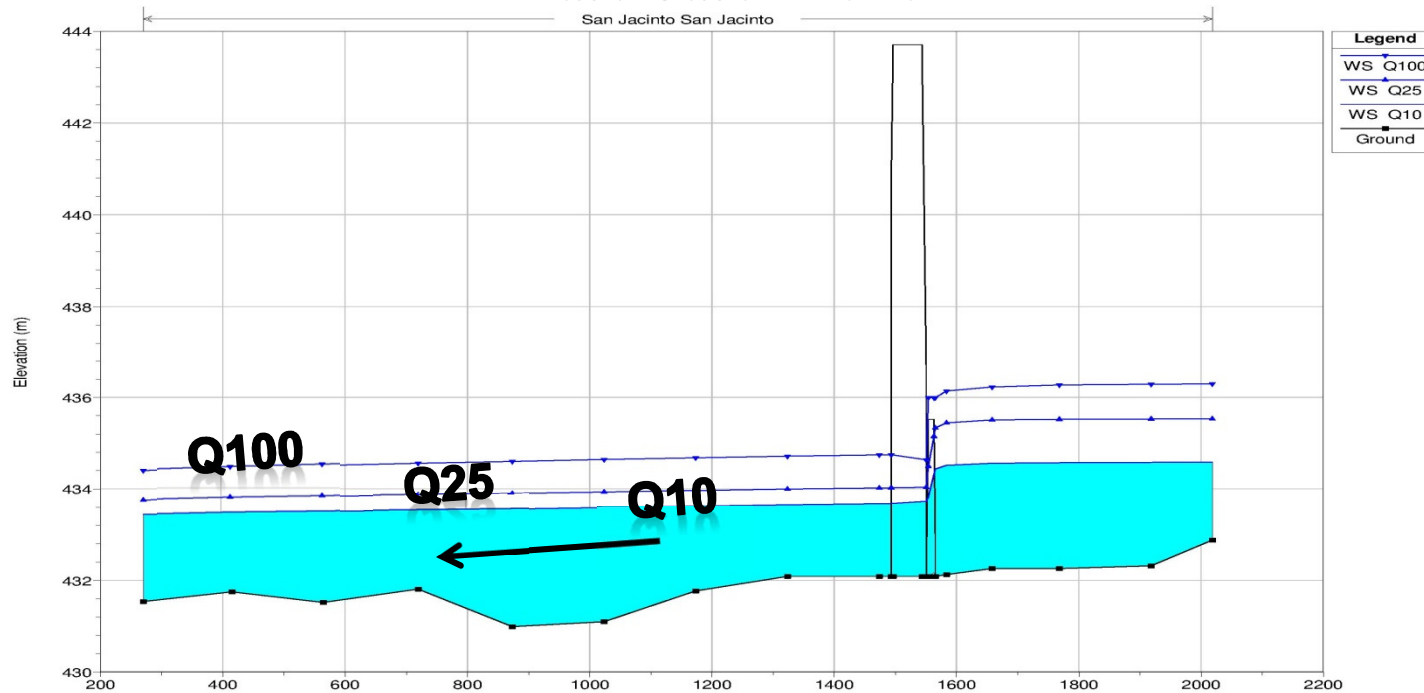
San Jacinto River – HEC RAS

Existing Condition- Profile



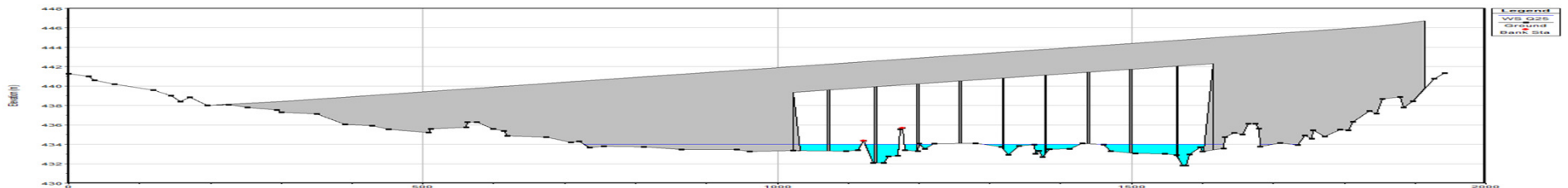
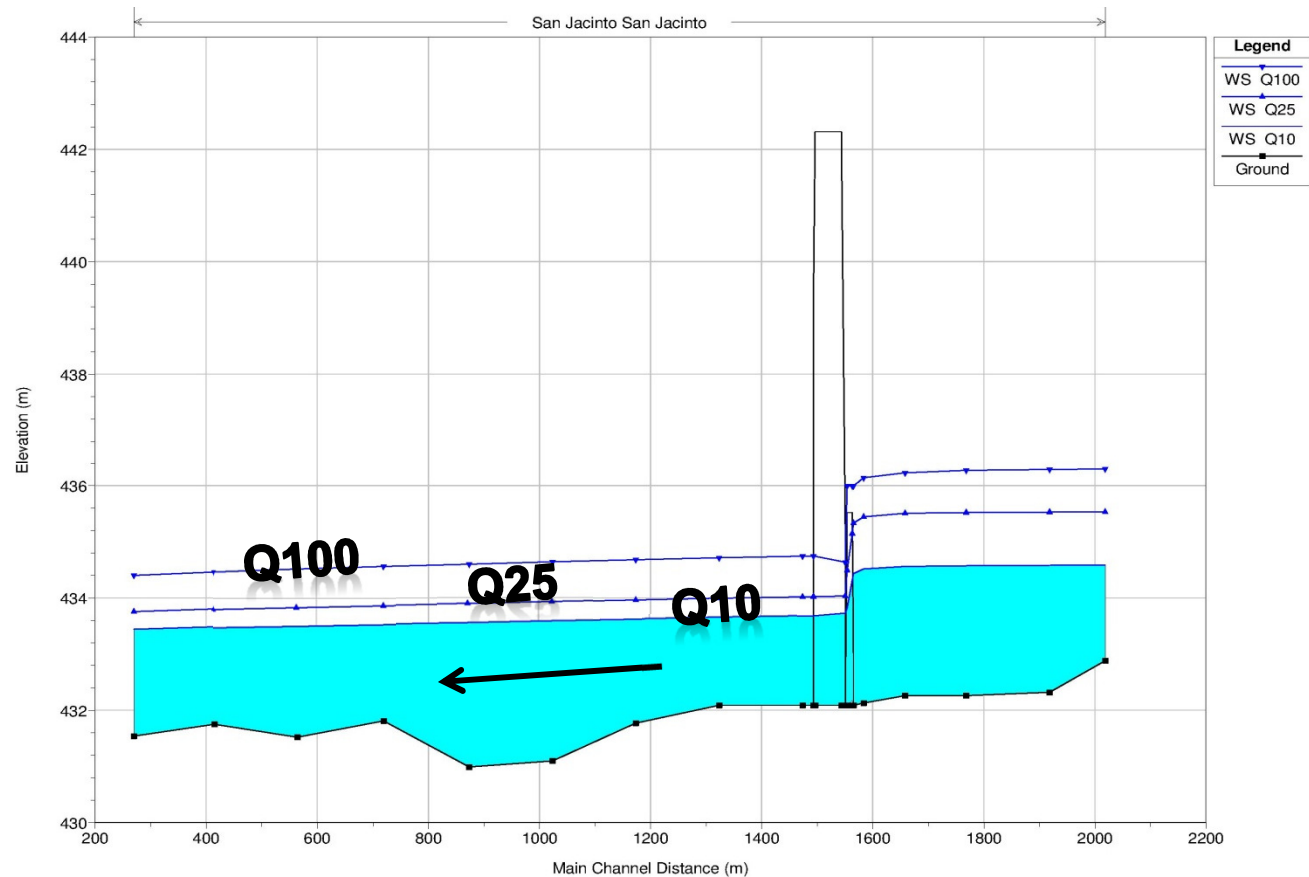
San Jacinto River – HEC RAS

Base Case- Profile



San Jacinto River – HEC RAS

SJRB Design Variation - Profile



BASE CASE VS. DESIGN VARIATION

BASE CASE VS SJBR DESIGN VARIATION [DEPTH (M) & VELOCITY (M/S)]												
SECTION	10 YR DEPTH			10 YR VELOCITY			25 YR DEPTH			25 YR VELOCITY		
	BC	DV	Δ	BC	DV	Δ	BC	DV	Δ	BC	DV	Δ
1460	1.7	1.7	0.0	0.1	0.1	0.0	2.6	2.6	0.0	0.1	0.1	0.0
1360	2.3	2.3	0.0	0.1	0.1	0.0	3.2	3.2	0.0	0.2	0.2	0.0
1210	2.3	2.3	0.0	0.2	0.2	0.0	3.3	3.3	0.0	0.2	0.2	0.0
1100	2.3	2.3	0.0	0.3	0.3	0.0	3.2	3.2	0.0	0.4	0.4	0.0
1025	2.4	2.4	0.0	0.8	0.8	0.0	3.3	3.3	0.0	1.0	1.0	0.0
1007	2.3	2.3	0.0	1.3	1.3	0.0	3.2	3.2	0.0	1.7	1.7	0.0
1000	EX. BRIDGE			EX. BRIDGE			EX. BRIDGE			EX. BRIDGE		
992	1.7	1.8	0.1	1.4	1.2	-0.1	2.0	2.3	0.2	1.6	1.1	-0.5
964	PROP.BRI DGE			PROP.BRI DGE			PROP.BRI DGE			PROP.BRID GE		
935	1.6	1.6	0.0	0.7	0.7	0.0	1.9	1.9	0.0	0.7	0.7	0.0
915	1.6	1.6	0.0	0.4	0.4	0.0	1.9	1.9	0.0	0.4	0.4	0.0
765	1.6	1.6	0.0	0.3	0.3	0.0	1.9	1.9	0.0	0.4	0.4	0.0
615	1.9	1.9	0.0	0.4	0.4	0.0	2.2	2.2	0.0	0.4	0.4	0.0
465	2.5	2.5	0.0	0.4	0.4	0.0	2.8	2.8	0.0	0.4	0.4	0.0
317	2.6	2.6	0.0	0.4	0.4	0.0	2.9	2.9	0.0	0.4	0.4	0.0
300	1.7	1.7	0.0	0.3	0.3	0.0	2.1	2.1	0.0	0.3	0.3	0.0
290	2.0	2.0	0.0	0.3	0.3	0.0	2.3	2.3	0.0	0.4	0.4	0.0
280	1.7	1.7	0.0	0.3	0.3	0.0	2.1	2.1	0.0	0.4	0.4	0.0
270	1.9	1.9	0.0	0.5	0.5	0.0	2.2	2.2	0.0	0.6	0.6	0.0

SJR SCOUR – EXIST vs BASE vs DV

Flow

COMPARISON OF EXISTING, BASE CASE AND DESIGN VARIATION EXPECTED SCOUR (M), SAN JACINTO RIVER FOLLOWING HEC-18 (FHWA) CRITERIA																
SECTION	EXISTING			BASE CASE			DESIGN VARIATION			Δ(BC-EX)			Δ(DV-EX)			
	10	25	100	10	25	100	10	25	100	10	25	100	10	25	100	
EXIST BRIDGE	1460	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	
	1360	0.6	0.6	0.7	0.6	0.6	0.7	0.6	0.6	0.7	0.0	0.0	0.0	0.0	0.0	
	1210	0.6	0.6	0.7	0.6	0.6	0.7	0.6	0.6	0.7	0.0	0.0	0.0	0.0	0.0	
	1100	0.6	0.7	0.8	0.6	0.7	0.8	0.6	0.7	0.8	0.0	0.0	0.0	0.0	0.0	
	1025	0.7	0.8	0.9	0.7	0.8	0.9	0.7	0.8	0.9	0.0	0.0	0.0	0.0	0.0	
	1007	0.9	1.0	1.2	0.9	1.0	1.2	0.9	1.0	1.2	0.0	0.0	0.0	0.0	0.0	
	1000	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	
PROP BRIDGE	992	1.0	1.1	1.3	0.9	1.0	1.2	0.9	0.8	0.8	-0.1	-0.1	-0.1	-0.1	-0.5	
	964	---	---	---	0.6	0.6	0.6	0.6	0.6	0.6	---	---	---	---	---	
	935	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	
	915	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	
	765	0.6	0.6	0.7	0.6	0.6	0.7	0.6	0.6	0.7	0.0	0.0	0.0	0.0	0.0	
	615	0.6	0.7	0.7	0.6	0.7	0.7	0.6	0.7	0.7	0.0	0.0	0.0	0.0	0.0	
	465	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	
	317	0.6	0.7	0.7	0.6	0.7	0.7	0.6	0.7	0.7	0.0	0.0	0.0	0.0	0.0	
	300	0.6	0.6	0.7	0.6	0.6	0.7	0.6	0.6	0.7	0.0	0.0	0.0	0.0	0.0	
	290	0.6	0.7	0.7	0.6	0.7	0.7	0.6	0.7	0.7	0.0	0.0	0.0	0.0	0.0	
	280	0.6	0.7	0.7	0.6	0.7	0.7	0.6	0.7	0.7	0.0	0.0	0.0	0.0	0.0	
	270	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	

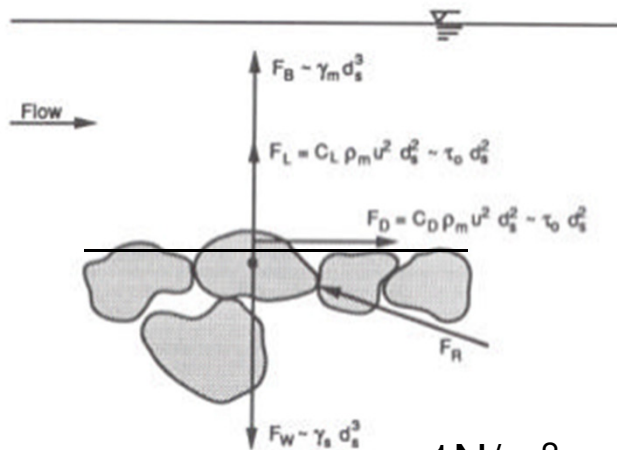
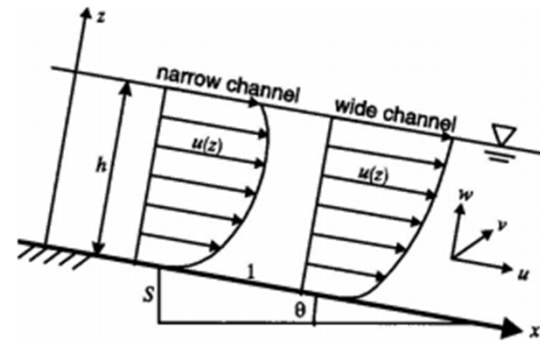
MAXIMUM= 0.0 0.0 0.0 0.0 0.0 0.0

MINIMUM= -0.1 -0.1 -0.1 -0.1 -0.3 -0.5

AVERAGE= 0.0 0.0 0.0 0.0 0.0 0.0

San Jacinto River – Boundary Shear Stress

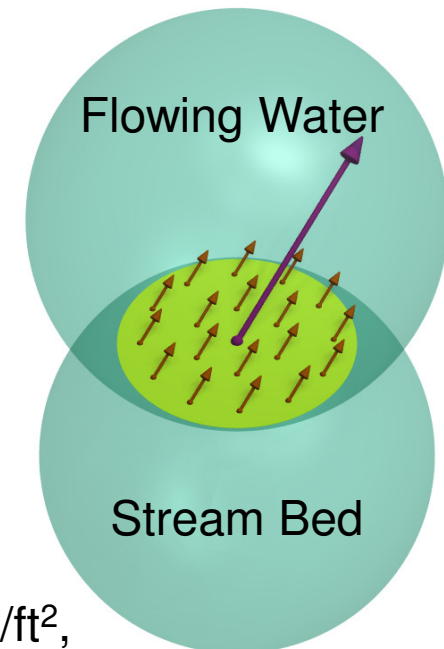
Boundary Shear Stress— the force per unit area in the flow direction



Stress— average force per unit area

Unit of Measure
– lbs/ft², N/m²

$$1\text{N/m}^2 = 0.0001 \text{ lbs/in}^2 = 0.02089 \text{ lbs/ft}^2,$$

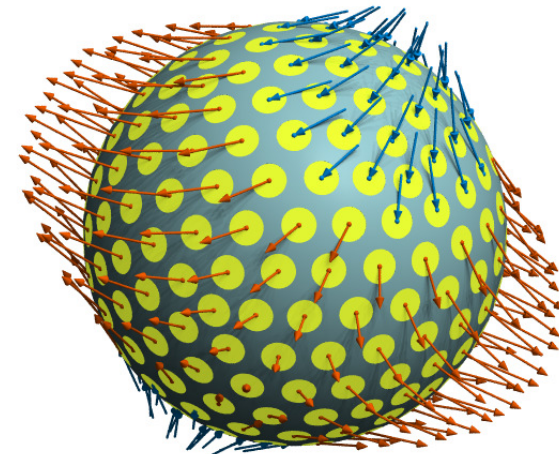


San Jacinto River – Critical Shear Stress

$$1\text{N/m}^2 = 0.0001 \text{ lbs/in}^2 = 0.02089 \text{ lbs/ft}^2,$$

Particle classification name	Ranges of particle diameters		Shields parameter (dimensionless)	Critical bed shear stress (τ_c) (N/m ²)
	Φ	mm		
Coarse cobble	-7 – -8	128 – 256	0.054 – 0.054	112 – 223
Fine cobble	-6 – -7	64 – 128	0.052 – 0.054	53.8 – 112
Very coarse gravel	-5 – -6	32 – 64	0.05 – 0.052	25.9 – 53.8
Coarse gravel	-4 – -5	16 – 32	0.047 – 0.05	12.2 – 25.9
Medium gravel	-3 – -4	8 – 16	0.044 – 0.047	5.7 – 12.2
Fine gravel	-2 – -3	4 – 8	0.042 – 0.044	2.7 – 5.7
Very fine gravel	-1 – -2	2 – 4	0.039 – 0.042	1.3 – 2.7
Very coarse sand	0 – -1	1 – 2	0.029 – 0.039	0.47 – 1.3
Coarse sand	1 – 0	0.5 – 1	0.033 – 0.029	0.27 – 0.47
Medium sand	2 – 1	0.25 – 0.5	0.048 – 0.033	0.194 – 0.27
Fine sand	3 – 2	0.125 – 0.25	0.072 – 0.048	0.145 – 0.194
Very fine sand	4 – 3	0.0625 – 0.125	0.109 – 0.072	0.110 – 0.145
Coarse silt	5 – 4	0.0310 – 0.0625	0.165 – 0.109	0.0826 – 0.110
Medium silt	6 – 5	0.0156 – 0.0310	0.25 – 0.165	0.0630 – 0.0826
Fine silt	7 – 6	0.0078 – 0.0156	0.3 – 0.25	0.0378 – 0.0630

Sediment Transport occurs when boundary shear stress exceeds the soil particle critical shear stress



Stream Power is the time rate of potential energy expenditure per unit weight of water

It is a directly proportional indicator of a stream's sediment carrying capacity

San Jacinto River – Permissible Shear Stress

Boundary Category	Boundary Type	Permissible Shear Stress (lb/sq ft)	Permissible Velocity (ft/sec)
<u>Soils</u>	Fine colloidal sand	0.02 - 0.03	1.5
	Sandy loam (noncolloidal)	0.03 - 0.04	1.75
	Alluvial silt (noncolloidal)	0.045 - 0.05	2
	Silty loam (noncolloidal)	0.045 - 0.05	1.75 - 2.25
	Firm loam	0.075	2.5
	Fine gravels	0.075	2.5
	Stiff clay	0.26	3 - 4.5
	Alluvial silt (colloidal)	0.26	3.75
	Graded loam to cobbles	0.38	3.75
	Graded silts to cobbles	0.43	4
	Shales and hardpan	0.67	6
<u>Gravel/Cobble</u>	1-in.	0.33	2.5 - 5
	2-in.	0.67	3 - 6
	6-in.	2.0	4 - 7.5
	12-in.	4.0	5.5 - 12
<u>Vegetation</u>	Class A turf	3.7	6 - 8
	Class B turf	2.1	4 - 7
	Class C turf	1.0	3.5
	Long native grasses	1.2 - 1.7	4 - 6
	Short native and bunch grass	0.7 - 0.95	3 - 4
	Reed plantings	0.1-0.6	N/A
	Hardwood tree plantings	0.41-2.5	N/A

Avg. Permissible Shear Stress
 $1.2 \text{ lbs/ft}^2 = 57.46 \text{ N/m}^2$

Avg. Permissible Flow Velocity
 $4.5 \text{ fps} = 1.37 \text{ m/s}$

Typical San Jacinto River Vegetation



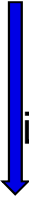
BASE CASE RIVER DYNAMICS

Flow

COMPARISON OF EROSION AND SEDIMENTATION FOR SJR AT PROPOSED HIGHWAY BRIDGE - EXISTING VS SJBR BASE CASE													
PARAMETER	SHEAR STRESS (N/m2)						Power (N / m*s)						
	PROPOSED		EXISTING		Δ		PROPOSED		EXISTING		Δ		
SECTION	10YR	25YR	10YR	25YR	10YR	25YR	10YR	25YR	10YR	25YR	10YR	25YR	
1460	0.25	0.27	0.25	0.27	0.00	0.00	0.03	0.04	0.03	0.04	0.00	0.00	
1360	0.38	0.43	0.38	0.43	0.00	0.00	0.06	0.08	0.06	0.08	0.00	0.00	
1210	0.83	0.97	0.83	0.97	0.00	0.00	0.19	0.27	0.19	0.27	0.00	0.00	
1100	1.69	2.59	1.69	2.59	0.00	0.00	0.58	1.18	0.58	1.18	0.00	0.00	
1025	11.10	15.97	11.1	15.97	0.00	0.00	8.73	16.32	8.73	16.32	0.00	0.00	
1007	34.69	47.32	34.69	47.32	0.00	0.00	44.87	77.63	44.87	77.63	0.00	0.00	
EX. BRIDGE	1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	992	86.96	631.59	490.45	631.59	-403.49	0.00	164.61	3145.09	1999.87	3145.09	-1835.26	0.00
SJBR BC BRIDGE	964	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	935	3.72	4.35	3.72	4.35	0.00	0.00	1.80	2.34	1.80	2.34	0.00	0.00
	915	1.42	2.05	1.42	2.05	0.00	0.00	0.41	0.76	0.41	0.76	0.00	0.00
	765	1.26	1.93	1.26	1.93	0.00	0.00	0.33	0.68	0.33	0.68	0.00	0.00
	615	1.40	2.12	1.4	2.12	0.00	0.00	0.39	0.78	0.39	0.78	0.00	0.00
	465	1.17	1.82	1.17	1.82	0.00	0.00	0.31	0.63	0.31	0.63	0.00	0.00
	317	1.13	1.85	1.13	1.85	0.00	0.00	0.29	0.65	0.29	0.65	0.00	0.00
	300	1.00	1.76	1	1.76	0.00	0.00	0.24	0.60	0.24	0.60	0.00	0.00
	290	1.07	1.89	1.07	1.89	0.00	0.00	0.27	0.67	0.27	0.67	0.00	0.00
	280	1.01	1.91	1.01	1.91	0.00	0.00	0.25	0.69	0.25	0.69	0.00	0.00
	270	2.28	3.33	2.28	3.33	0.00	0.00	0.84	1.53	0.84	1.53	0.00	0.00

Avg. Permissible Shear Stress for Long and Short Natural Grasses 1.2 lbs/ft² = 57.46 N/m²

DESIGN VARIATION RIVER DYNAMICS



Flow

PARAMETER	SHEAR STRESS (N/m ²)						Power (N / m*s)					
	PROPOSED		EXISTING		Δ		PROPOSED		EXISTING		Δ	
	10YR	25YR	10YR	25YR	10YR	25YR	10YR	25YR	10YR	25YR	10YR	25YR
SECTION 1460	0.25	0.27	0.25	0.27	0.00	0.00	0.03	0.04	0.03	0.04	0.00	0.00
1360	0.38	0.43	0.38	0.43	0.00	0.00	0.06	0.08	0.06	0.08	0.00	0.00
1210	0.83	0.97	0.83	0.97	0.00	0.00	0.19	0.27	0.19	0.27	0.00	0.00
1100	1.69	2.59	1.69	2.59	0.00	0.00	0.58	1.18	0.58	1.18	0.00	0.00
1025	11.10	15.97	11.1	15.97	0.00	0.00	8.73	16.32	8.73	16.32	0.00	0.00
1007	34.69	47.32	34.69	47.32	0.00	0.00	44.87	77.63	44.87	77.63	0.00	0.00
EX. BRIDGE 1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
992	18.25	19.7	490.45	631.59	-472.20	-611.89	17.85	20.56	1999.87	3145.09	-1982.02	-3124.53
SJBR DV BRIDGE 964	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
935	3.72	4.35	3.72	4.35	0.00	0.00	1.80	2.34	1.8	2.34	0.00	0.00
915	1.42	2.05	1.42	2.05	0.00	0.00	0.41	0.76	0.41	0.76	0.00	0.00
765	1.26	1.93	1.26	1.93	0.00	0.00	0.33	0.68	0.33	0.68	0.00	0.00
615	1.40	2.12	1.4	2.12	0.00	0.00	0.39	0.78	0.39	0.78	0.00	0.00
465	1.17	1.82	1.17	1.82	0.00	0.00	0.31	0.63	0.31	0.63	0.00	0.00
317	1.13	1.85	1.13	1.85	0.00	0.00	0.29	0.65	0.29	0.65	0.00	0.00
300	1.00	1.76	1	1.76	0.00	0.00	0.24	0.60	0.24	0.60	0.00	0.00
290	1.07	1.89	1.07	1.89	0.00	0.00	0.27	0.67	0.27	0.67	0.00	0.00
280	1.01	1.91	1.01	1.91	0.00	0.00	0.25	0.69	0.25	0.69	0.00	0.00
270	2.28	3.33	2.28	3.33	0.00	0.00	0.84	1.53	0.84	1.53	0.00	0.00

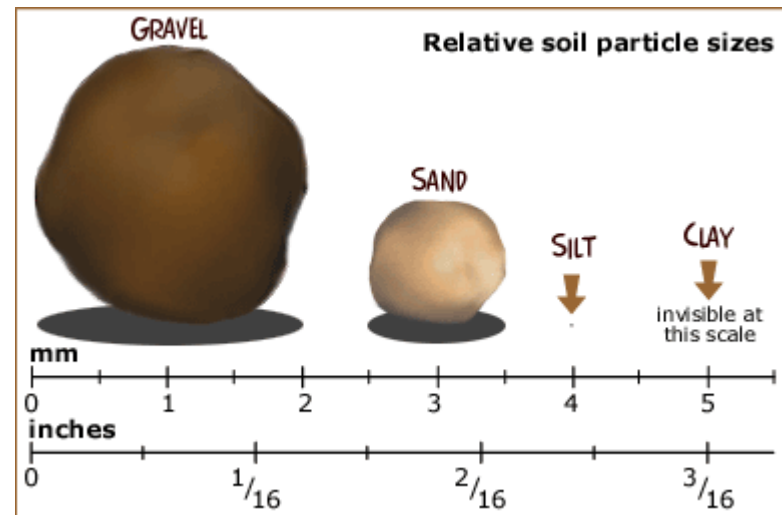
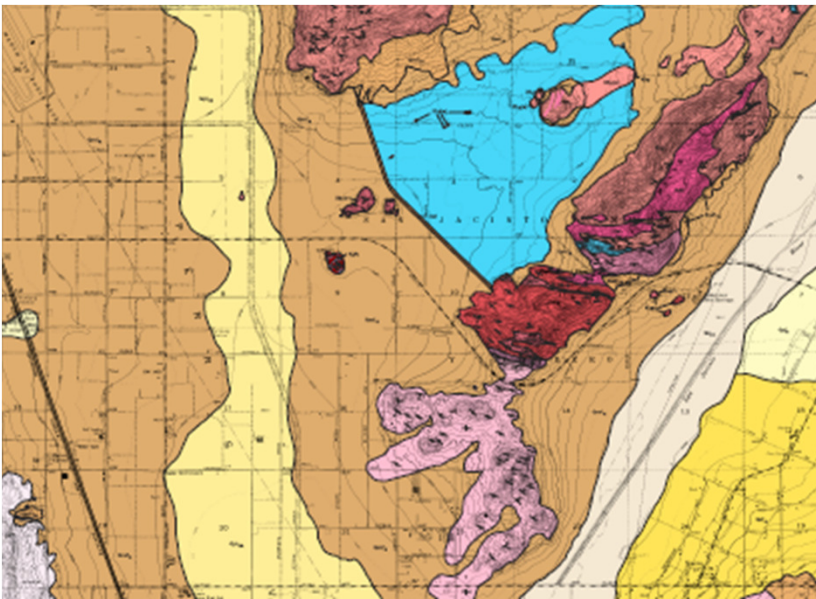
Avg. Permissible Shear Stress for Long and Short Natural Grasses 1.2 lbs/ft² = 57.46 N/m²

San Jacinto River – Lakeview / Perris Soils



Q_v Alluvial Valley Deposits – Clayey and Silty Sand, some gravel

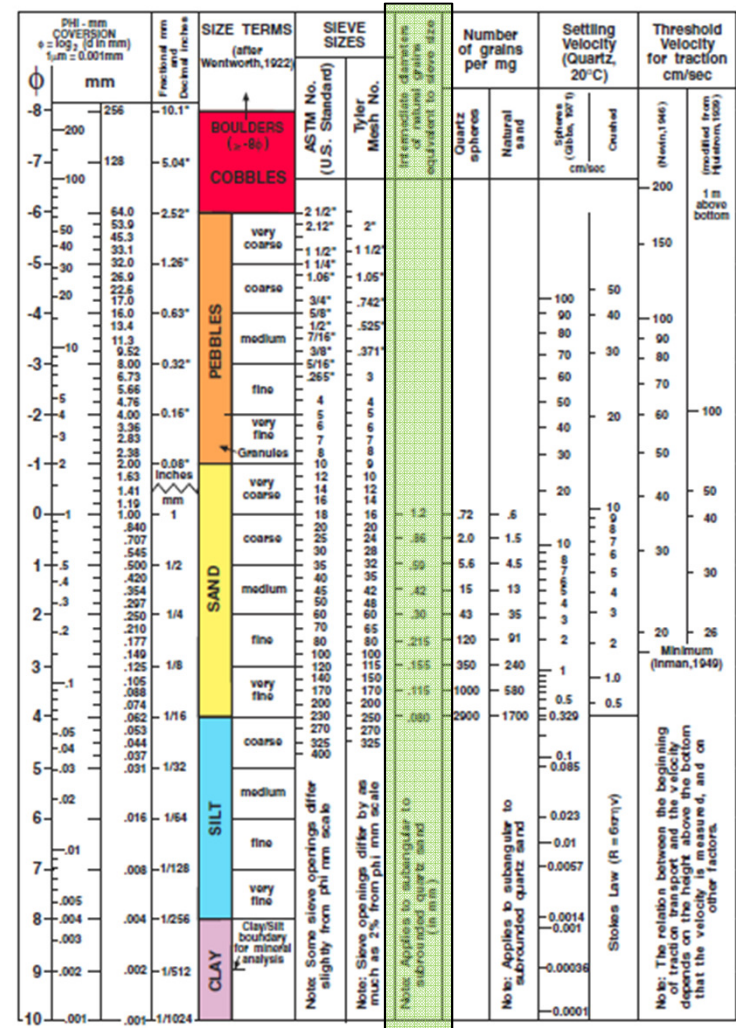
USGS 7.5' Perris Quadrangle



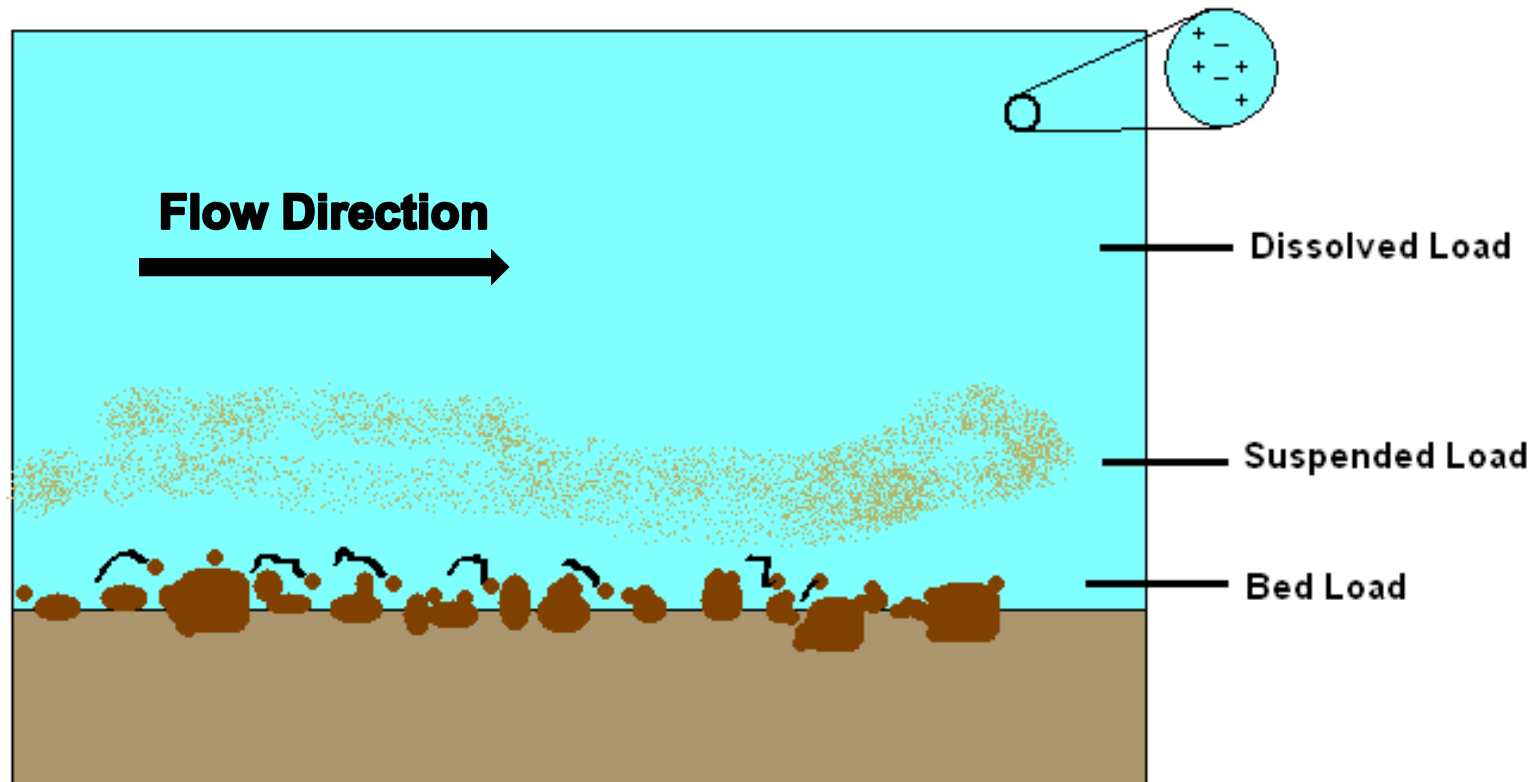
San Jacinto River – Sedimentation ?

Wentworth Grain Size Chart -USGS

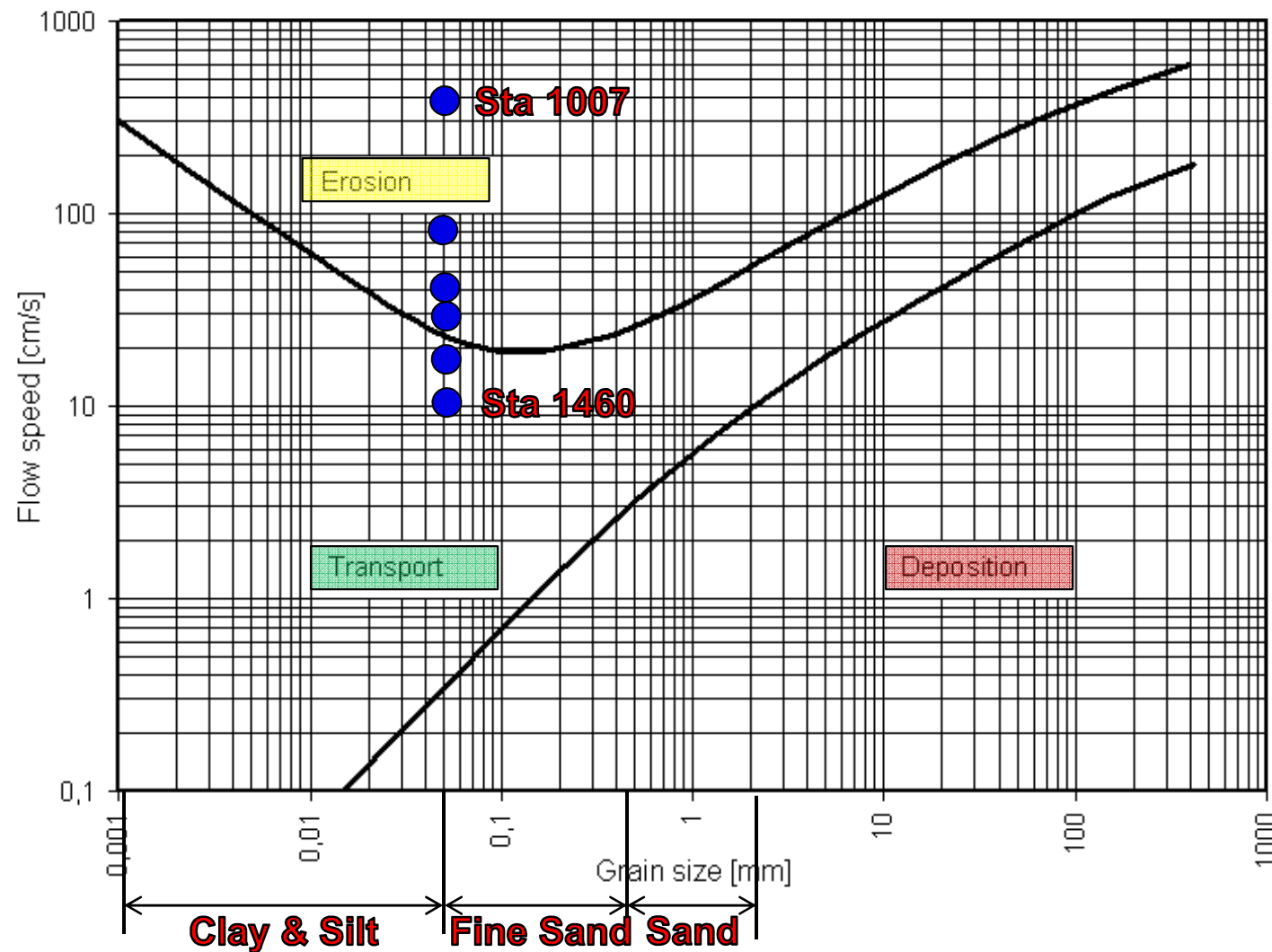
BASE CASE VS SJBR DESIGN VARIATION [VELOCITY (CM/S)]						
SECTION	10 YR VELOCITY			25 YR VELOCITY		
	BC	DV	Δ	BC	DV	Δ
1460	11.0	11.0	0.0	12.0	12.0	0.0
1360	14.0	14.0	0.0	16.0	16.0	0.0
1210	19.0	19.0	0.0	21.0	21.0	0.0
1100	29.0	29.0	0.0	37.0	37.0	0.0
1025	80.0	80.0	0.0	101.0	101.0	0.0
1007	131.0	131.0	0.0	167.0	167.0	0.0
1000	EX. BRIDGE			EX. BRIDGE		
992	137.0	123.0	-14.0	162.0	112.0	-50.0
964	PROP.BRI DGE			PROP.BRI DGE		
935	65.0	65.0	0.0	68.0	68.0	0.0
915	37.0	37.0	0.0	42.0	42.0	0.0
765	28.0	28.0	0.0	35.0	35.0	0.0
615	35.0	35.0	0.0	40.0	40.0	0.0
465	38.0	38.0	0.0	42.0	42.0	0.0
317	36.0	36.0	0.0	43.0	43.0	0.0
300	26.0	26.0	0.0	34.0	34.0	0.0
290	30.0	30.0	0.0	39.0	39.0	0.0
280	32.0	32.0	0.0	42.0	42.0	0.0
270	53.0	53.0	0.0	60.0	60.0	0.0



San Jacinto River – Sediment Transport



San Jacinto River – Sedimentation/Deposition



Hjulstrom-Sundborg Diagram

**SECTION 404 NO FEDERAL ACTION
ALTERNATIVE COST ESTIMATE**

Alternative 9 Modified – Section 404 No Federal Action Alternative (labeled Alternative-9 Modified 404 b1 in the discussion below)

Logic for 404 b1 analysis:

- 1) Review selected alternative for proposed bridges and assess which bridges could be lengthened to completely avoid federal waters /wetlands. Note number of bridges.
- 2) Review selected alternative for all locations where federal waters/wetlands impacted and assess a proposed bridge length that could fully avoid the impact. Note number of bridges.
- 3) Calculate cost to provide the additional bridge structures for avoidance and note how this relates to current overall cost of that alternative.

404 b1 analysis results:

Alternative-9 Modified 404 b1 is a maximum avoidance alternative to federal waters and wetlands. The alternative aims to avoid temporary and permanent impact to waters by bridging over, realigning roadway, and changing roadway profile. At locations where waters cannot be avoided, the alternative tries to minimize permanent water impact.

Alternative-9 Mod 404 b1 has 9 bridge structures that required lengthening. The bridge structure lengthening cost is \$126,928,000.

Alternative-9 Mod 404 b1 has an additional 34 bridge structures. The cost for the new bridge structures is \$202,718,750.

Existing Ramona Expwy at two locations, between Walnut St to Bernasconi Rd and East Boundary Rd to Warren Rd, has federal waters running parallel to the road and some waters that cross over the road. At this location MCP will impact the water features that run parallel to Ramona Expwy. These water features will be relocated outside of MCP alignment footprint. These water features will not be impacted permanently. The water lines that cross existing Ramona Expwy will be bridge over to avoid impact. The water relocation cost is minimal.

The existing I-215 north bound, between Nuevo Rd and Water Ave, has federal waters running parallel to the freeway. At this location the MCP project will widen the freeway to the outside and will impact the water features that run parallel to the freeway during construction. These water features will be relocated outside of freeway alignment footprint. These water lines will not be impacted permanently. The water relocation cost is not substantial.

The MCP profile, between Bradley Rd and Ramona Expwy, would be raised to reduce the cut section through the mountain terrain and minimize impacts to waters. This will allow the MCP alignment to bridge over one water feature and avoid impact. However, four other water features are too high in elevation that MCP alignment cannot reach and bridge over, therefore creating permanent impact to these waters. There is no significant change in cost for changing MCP alignment profile. The bridge structure is the substantial cost and is included above in additional bridge costs.

Existing Placentia Ave and Ramona Expwy near I-215 freeway have water features running parallel to the road. At these locations, roadway realignment is required to avoid impact to the waters. Four new overcrossing structures would be needed to crossover I-215 freeway and rail road. The Placentia Ave roadway realignment and structure cost difference will be \$10,000,000. The Ramona Expwy roadway realignment and structure cost difference will be \$25,000,000. The additional \$3M will be added to roadway numbers, the bridge numbers are shown below.

Bridge structures that required lengthening to avoid impact to federal waters and wetlands

	Bridge Name/Location	Span (ft)	Width (ft)	Bridge Area	Cost (\$/ft2)	Bridge Cost
1	WB MCP to NB I-215 Conn	200	42	8,400	250	\$2,100,000
2	Placentia Ave OH Widen	50	11	550	400	\$220,000
3	Ramona Exp/Antelope Rd UC (3 structures)	250	164	41,000	280	\$11,480,000
4	Warren Rd OC	250	120	30,000	280	\$8,400,000
5	Ramona Expwy Line Z bridge	900	107	96,300	250	\$24,075,000
6	NB & SB SR-79 UC Ramona Exp	1,400	84	117,600	280	\$32,928,000
7	SB SR-79 San Jacinto River bridge	2,500	47	117,500	250	\$29,375,000
8	SB SR-79 to WB MCP Conn	1,300	42	54,600	250	\$13,650,000
9	SR-79 SB On Ramp from Ramona Exp	400	47	18,800	250	\$4,700,000
Total Cost						\$126,928,000

New bridge structures required to avoid impact to federal waters/wetlands

	Bridge Name/Location	Span (ft)	Width (ft)	Bridge Area	Cost (\$/ft2)	Bridge Cost
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1	I-215 Mainline (1556+50 to 1557+50)	100	46	4,600	250	\$1,150,000
2	I-215 Mainline (1560+50 to 1563+00)	250	92	23,000	250	\$5,750,000
3	I-215 Mainline (1677+50 to 1678+50)	100	46	4,600	250	\$1,150,000
4	I-215 Mainline (1732+50 to 1733+50)	100	46	4,600	250	\$1,150,000
5	NB On Ramp from Ramona	100	39	3,900	250	\$975,000
6	NB On Ramp from Ramona	300	24	7,200	250	\$1,800,000
7	NB Off Ramp to Ramona	100	39	3,900	250	\$975,000
8	Placentia Ave (from I-215 NB Ramps to Frontage Rd)	400	96	38,200	250	\$9,550,000
9	NB Off Ramp to Placentia	150	51	7,665	250	\$1,916,250
10	NB On Ramp from Placentia	150	39	5,850	250	\$1,462,500
11	SB Off Ramp to Placentia	150	47	7,050	250	\$1,762,500
12	SB On Ramp from Placentia	150	39	5,850	250	\$1,462,500
13	East Frontage Rd Location 4 (862+00 to 865+00)	300	57	17,100	250	\$4,275,000
14	East Frontage Rd Location 3 (4 bridges)	800	45	36,000	250	\$9,000,000
15	East Frontage Rd Location 1	100	45	4,500	250	\$1,125,000
16	MCP Bridge (348+00 to 350+00)	100	46	4,600	250	\$1,150,000
17	I-215 Mainline (1514+50 to 1515+50)	100	46	4,600	250	\$1,150,000
18	MCP Bridge (312+00 to 316+00)	400	130	52,000	250	\$13,000,000
19	MCP Bridge (348+00 to 350+00)	200	132	26,400	250	\$6,600,000
20	MCP Bridge (386+00 to 388+00)	200	130	26,000	250	\$6,500,000
21	MCP Bridge (400+50 to 420+50)	200	118	23,600	250	\$5,900,000
22	MCP Bridge (414+50 to 416+50)	200	149	29,800	250	\$7,450,000
23	MCP Bridge (424+50 to 426+50)	200	118	23600	250	\$5,900,000
24	MCP bridge (Sta707+00 to 709+00)	200	61	12,200	250	\$3,050,000
25	Warren Rd (Location 1)	600	104	62,400	250	\$15,600,000
26	Warren Rd (Location 2)	300	104	31,200	250	\$7,800,000
27	WB Off Ramp to Warren	300	51	15,300	250	\$3,825,000
28	WB Loop On Ramp from Warren	250	43	10,750	250	\$2,687,500
29	EB Off Ramp to Warren	300	63	18,900	250	\$4,725,000
30	Ramona Expwy near SR-79	400	175	70,000	250	\$17,500,000

31	WB On Ramp from Ramona near SR-79	150	39	5,850	250	\$1,462,500
32	SB SR-79 Off Ramp to Ramona Location 1	1,100	53	57,860	250	\$14,465,000
33	SB SR-79 Off Ramp to Ramona location 2	900	27	24,300	250	\$6,075,000
34	MCP Bridge (near Warren)	1,100	125	137,500	250	\$34,375,000
Total Cost						\$202,718,750

For the SJN - Design Variation, the cost difference is approximately \$57 million less.

Note: Maps with backup located in notebook with calculations.

Alternative 9 Modified Base Case (Southerly Alignment) - Section 404 No Action Alternatives

Bridge structures that required lengthening to avoid impact to federal waters and wetlands

	Bridge Name/Location	Span (ft)	Width (ft)	Bridge Area	Cost (\$/ft2)	Bridge Cost
1	WB MCP to NB I-215 Conn	200	42	8,400	250	\$2,100,000
2	Placentia Ave OH Widen	50	11	550	400	\$220,000
3	Ramona Exp/Antelope Rd UC (3 structures)	250	164	41,000	280	\$11,480,000
4	Warren Rd OC	250	120	30,000	280	\$8,400,000
5	Ramona Expwy Line Z bridge	900	107	96,300	250	\$24,075,000
6	NB & SB SR-79 UC Ramona Exp	1,400	84	117,600	280	\$32,928,000
7	SB SR-79 San Jacinto River bridge	2,500	47	117,500	250	\$29,375,000
8	SB SR-79 to WB MCP Conn	1,300	42	54,600	250	\$13,650,000
9	SR-79 SB On Ramp from Ramona Exp	400	47	18,800	250	\$4,700,000
Total Cost						\$126,928,000

New bridge structures required to avoid impact to federal waters/wetlands

	Bridge Name/Location	Span (ft)	Width (ft)	Bridge Area	Cost (\$/ft2)	Bridge Cost
1	I-215 Mainline (1556+50 to 1557+50)	100	46	4,600	250	\$1,150,000
2	I-215 Mainline (1560+50 to 1563+00)	250	92	23,000	250	\$5,750,000
3	I-215 Mainline (1677+50 to 1678+50)	100	46	4,600	250	\$1,150,000
4	I-215 Mainline (1732+50 to 1733+50)	100	46	4,600	250	\$1,150,000
5	NB On Ramp from Ramona	100	39	3,900	250	\$975,000
6	NB On Ramp from Ramona	300	24	7,200	250	\$1,800,000
7	NB Off Ramp to Ramona	100	39	3,900	250	\$975,000
8	Placentia Ave (from I-215 NB Ramps to Frontage Rd)	400	96	38,200	250	\$9,550,000
9	NB Off Ramp to Placentia	150	51	7,665	250	\$1,916,250
10	NB On Ramp from Placentia	150	39	5,850	250	\$1,462,500
11	SB Off Ramp to Placentia	150	47	7,050	250	\$1,762,500
12	SB On Ramp from Placentia	150	39	5,850	250	\$1,462,500
13	East Frontage Rd Location 4 (862+00 to 865+00)	300	57	17,100	250	\$4,275,000
14	East Frontage Rd Location 3 (4 bridges)	800	45	36,000	250	\$9,000,000
15	East Frontage Rd Location 1	100	45	4,500	250	\$1,125,000
16	MCP Bridge (348+00 to 350+00)	100	46	4,600	250	\$1,150,000

17	I-215 Mainline (1514+50 to 1515+50)	100	46	4,600	250	\$1,150,000
18	MCP Bridge (312+00 to 316+00)	400	130	52,000	250	\$13,000,000
19	MCP Bridge (348+00 to 350+00)	200	132	26,400	250	\$6,600,000
20	MCP Bridge (386+00 to 388+00)	200	130	26,000	250	\$6,500,000
21	MCP Bridge (400+50 to 420+50)	200	118	23,600	250	\$5,900,000
22	MCP Bridge (414+50 to 416+50)	200	149	29,800	250	\$7,450,000
23	MCP Bridge (424+50 to 426+50)	200	118	23600	250	\$5,900,000
24	MCP bridge (Sta707+00 to 709+00)	200	61	12,200	250	\$3,050,000
25	Warren Rd (Location 1)	600	104	62,400	250	\$15,600,000
26	Warren Rd (Location 2)	300	104	31,200	250	\$7,800,000
27	WB Off Ramp to Warren	300	51	15,300	250	\$3,825,000
28	WB Loop On Ramp from Warren	250	43	10,750	250	\$2,687,500
29	EB Off Ramp to Warren	300	63	18,900	250	\$4,725,000
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31	WB On Ramp from Ramona near SR-79	150	39	5,850	250	\$1,462,500
32	SB SR-79 Off Ramp to Ramona Location 1	1,100	53	57,860	250	\$14,465,000
33	SB SR-79 Off Ramp to Ramona location 2	900	27	24,300	250	\$6,075,000
34	MCP Bridge (near Warren)	1,100	125	137,500	250	\$34,375,000

Total Cost \$202,718,750

\$126,928,000

+ \$202,718,750

All Structures Cost \$329,646,750

Structure Category

Structure Category		Cost (\$/ft2)
Mainline (Viaduct and bridge over stream)	A	\$250
Service I/C (OC,UC, local street, ramps)	B	\$280
System I/C (Connector, C-D Rd, Separation)	C	\$250
Land Crossing	D	-
Widening	E	\$400

10% mobilization and 25% contingency included

Increase to Engineering Cost = 20% of \$329M = \$66 M

Alternative 9 Modified Design Variation SJN - Section 404 No Action Alternative

Bridge structures that required lengthening to avoid impact to federal waters and wetlands

	Bridge Name/Location	Span (ft)	Width (ft)	Bridge Area	Cost (\$/ft2)	Bridge Cost
1	WB MCP to NB I-215 Conn	200	42	8,400	250	\$2,100,000
2	Placentia Ave OH Widen	50	11	550	400	\$220,000
3	Ramona Exp/Antelope Rd UC (3 structures)	250	164	41,000	280	\$11,480,000
4	NB & SB SR-79 San Jacinto River bridge	4,100	84	344,400	280	\$96,432,000
5	SB SR-79 to WB MCP Conn	550	42	23,100	250	\$5,775,000
6	Ramona Exp OC at SR-79	600	107	64,200	250	\$16,050,000
Total Cost						\$132,057,000

New bridge structures required to avoid impact to federal waters/wetlands

	Bridge Name/Location	Span (ft)	Width (ft)	Bridge Area	Cost (\$/ft2)	Bridge Cost
1	I-215 Mainline (1556+50 to 1557+50)	100	46	4,600	250	\$1,150,000
2	I-215 Mainline (1560+50 to 1563+00)	250	92	23,000	250	\$5,750,000
3	I-215 Mainline (1677+50 to 1678+50)	100	46	4,600	250	\$1,150,000
4	I-215 Mainline (1732+50 to 1733+50)	100	46	4,600	250	\$1,150,000
5	NB On Ramp from Ramona	100	39	3,900	250	\$975,000
6	NB On Ramp from Ramona	300	24	7,200	250	\$1,800,000
7	NB Off Ramp to Ramona	100	39	3,900	250	\$975,000
8	Placentia Ave (from I-215 NB Ramps to Frontage Rd)	400	96	38,200	250	\$9,550,000
9	NB Off Ramp to Placentia	150	51	7,665	250	\$1,916,250
10	NB On Ramp from Placentia	150	39	5,850	250	\$1,462,500
11	SB Off Ramp to Placentia	150	47	7,050	250	\$1,762,500
12	SB On Ramp from Placentia	150	39	5,850	250	\$1,462,500
13	East Frontage Rd Location 4 (862+00 to 865+00)	300	57	17,100	250	\$4,275,000
14	East Frontage Rd Location 3 (4 bridges)	800	45	36,000	250	\$9,000,000
15	East Frontage Rd Location 1	100	45	4,500	250	\$1,125,000
16	MCP Bridge (348+00 to 350+00)	200	132	26,400	250	\$6,600,000
17	MCP bridge (Sta707+00 to 709+00)	200	61	12,200	250	\$3,050,000
18	MCP Bridge (312+00 to 316+00)	400	130	52,000	250	\$13,000,000

19	SB SR-79 Off Ramp to Ramona	1,250	41	51,250	250	\$12,812,500
20	MCP Bridge (386+00 to 388+00)	200	130	26,000	250	\$6,500,000
21	MCP Bridge (400+50 to 420+50)	200	118	23,600	250	\$5,900,000
22	MCP Bridge (414+50 to 416+50)	200	149	29,800	250	\$7,450,000
23	MCP Bridge (424+50 to 426+50)	200	118	23600	250	\$5,900,000
24	SB SR-79 On Ramp from Ramona	500	39	19,500	250	\$4,875,000
25	EB MCP to SB SR-79 conn (2 Bridges)	1,300	42	54,600	250	\$13,650,000
26	SB SR-79 bridge	400	69	27,600	250	\$6,900,000
27	NB SR-79 bridge	350	47	16,450	250	\$4,112,500
28	NB SR-79 to WB MCP Conn 2 bridges)	600	42	25,200	250	\$6,300,000

Total Cost \$140,553,750

\$132,057,000

+ \$140,553,750

All Structures Cost \$272,610,750

Structures Category

Structure Category		Cost (\$/ft2)
Mainline (Viaduct and bridge over stream)	A	\$250
Service I/C (OC,UC, local street, ramps)	B	\$280
System I/C (Connector, C-D Rd, Separation)	C	\$250
Land Crossing	D	-
Widening	E	\$400

**DRAFT HABITAT MITIGATION
AND MONITORING PLAN**

**CONCEPTS/PRELIMINARY
HABITAT MITIGATION AND MONITORING
PLAN**

**MID COUNTY PARKWAY
RIVERSIDE COUNTY, CALIFORNIA**

DRAFT

LSA

December 2013

**Concepts/Preliminary Habitat Mitigation and Monitoring Plan
December 2013
UPDATE**

The *Concepts/Preliminary Habitat Mitigation and Monitoring Plan* (December 2013) included as an attachment in the December 18, 2013 “Mid County Parkway Preferred Alternative/Preliminary LEDPA Identification (NEPA/404 Checkpoint 3)” has been superseded by an expanded version titled *Draft Habitat Mitigation and Monitoring Plan* dated October 2014. That expanded Draft HMMP is provided in Appendix P in the Final EIR/EIS. As a result, the December 2013 version of the Concepts/Preliminary HMMP was deleted from this appendix; please refer to Appendix P for the most current version of the Draft HMMP.

APPENDIX B

CONSERVATION EASEMENT FOR PARCEL 426-020-007

DOC # 2013-0246584

05/23/2013 02:23P Fee:NC

Page 1 of 45

Recorded in Official Records

County of Riverside

Larry W. Ward

Assessor, County Clerk & Recorder

RECORDING REQUESTED BY:
AND WHEN RECORDED MAIL TO:Western Riverside County
Regional Conservation Authority
3403 Tenth Street, Suite 320
P.O. Box 1667
Riverside CA 92502-1667
Attn: Executive Director

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M	A	L	465	426	PCOR	NCOR	SMF	NCHG	EXAM
NCHGCT Rec Customer Riv. Co. Trans. Commission						T:	CTY	UNI	524

Exempt from recording fee
(Gov. Code, §§ 6103 & 27383)

Space Above Line for Recorder's Use Only

CONSERVATION EASEMENT

THIS CONSERVATION EASEMENT ("Conservation Easement") is made this 22nd day of May, 2013 by RIVERSIDE COUNTY TRANSPORTATION COMMISSION, a county transportation commission ("Grantor" or "RCTC"), in favor of the WESTERN RIVERSIDE COUNTY REGIONAL CONSERVATION AUTHORITY, a public agency and a joint powers authority ("Grantee" or "RCA") with reference to the following facts:

RECITALS

A. Grantor is undertaking infrastructure improvements in the County of Riverside, State of California, commonly referred to as I-215 Central Project (the "Project").

B. Grantor is the sole owner in fee simple of real property containing 18.2 acres consisting of a mitigation parcel and a remainder parcel, located near the City of Hemet, County of Riverside, State of California, designated Assessor Parcel Numbers 426-020-007 (the "Property"). The Property is legally described on Exhibit "A" attached hereto and incorporated by this reference.

C. Grantor intends to grant a conservation easement over the mitigation parcel which is 16.9-acres of the Property (the "Conservation Property"). The Conservation Property is legally described on Exhibit "B" and depicted on Exhibit "C" attached hereto and incorporated by this reference.

D. The Conservation Property provides, among other things, compensatory mitigation for unavoidable impacts associated with the Project by Grantor pursuant to requirements of the following state and Federal agency approvals (the "Agency Approvals"): United States Army Corps of Engineers' ("ACOE") Section 404 Permit No. SPL-2010-00944-SCH (the "Section 404 Permit"), Clean Water Act Section 401 water quality certification issued by the Santa Ana Regional Water Quality Control Board Project No. 332012-04 (the "401 Certification"), Streambed Alteration Agreement Notification No. 1600-2012-0024-R6 ("1602 Agreement") with the California Department of Fish and Wildlife, and the United States Fish

and Wildlife's Endangered Species Act Section 7 Biological Opinion ("BO"), and any amendments thereto.

E. This Conservation Easement is designed to satisfy and is granted in satisfaction of the Agency Approvals as it pertains to the Conservation Property.

F. Consistent with the terms and conditions of this Conservation Easement, the Conservation Property is and will remain in a Natural Condition as defined herein and is intended to be preserved in its natural, scenic, open condition to maintain its ecological, historical, visual and educational values (collectively, "**Conservation Values**"). The Conservation Values are of importance to the people of the County of Riverside and the people of the State of California and United States, which are consistent with the habitat conservation purposes of the Western Riverside County Multiple Species Habitat Conservation Plan ("MSHCP").

G. Grantee is authorized to hold conservation easements pursuant to Civil Code Section 815.3.

H. The ACOE is the Federal agency charged with regulatory authority over discharges of dredged and fill material in waters of the United States pursuant to Section 404 of the Clean Water Act, and is a third party beneficiary of this Conservation Easement.

COVENANTS, TERMS, CONDITIONS AND RESTRICTIONS

In consideration of the above recitals and the mutual covenants, terms, conditions, and restrictions contained herein, and pursuant to the laws of the United States and State of California, including Civil Code Section 815, *et seq.*, Grantor hereby voluntarily grants and conveys to Grantee and its successors or assigns, as appropriate, a conservation easement in perpetuity over the Conservation Property of the nature and character and to the extent hereinafter set forth. This Conservation Easement shall run with the land and be binding on Grantor's heirs, successors, administrators, assigns, lessees, and other occupiers or users of the Conservation Property or any portion of it.

1. Purpose.

(a) The purpose of this Conservation Easement is to ensure the Conservation Property will be managed and preserved in a Natural Condition, as defined herein, in perpetuity and to prevent any use of the Conservation Property that will impair or interfere with the Conservation Values of the Conservation Property (the "**Purpose**"). Grantor intends that this Conservation Easement will confine the use of the Conservation Property to such activities that are consistent with this Purpose and the MSHCP, including without limitation, those involving the preservation, restoration, and enhancement of native species and their habitats.

(b) The term "**Natural Condition**," as referenced in the preceding paragraph and other portions of this Conservation Easement, shall mean the condition of the Conservation Property, as it exists at the time this Conservation Easement is executed, as well as future enhancements or changes to the Conservation Property that occur directly as a result of the following activities:



(1) Compensatory mitigation measures, including implementation, maintenance, and monitoring activities (collectively, "**Compensatory Mitigation**") required by the Agency Approvals and as described in the HABITAT MITIGATION AND MONITORING PLAN FOR IMPACTS TO AREAS WITHIN THE JURISDICTION OF THE UNITED STATES ARMY CORPS OF ENGINEERS PURSUANT TO THE SECTION 404 OF THE CLEAN WATER ACT AND CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE PURSUANT OF CODE [SIC] 1602 OF FISH AND GAME CODE FOR RE-ESTABLISHMENT OF 0.70 ACRE OF VERNAL POOLS AND 5.1 ACRE OF ASSOCIATED WATERSHED, REHABILITATION OF 0.02 ACRE OF VERNAL POOLS AND 0.35 ACRE OF ASSOCIATED WATERSHED, MITIGATION FOR IMPACTS TO SPECIAL-STATUS PLANT SPECIES ASSOCIATED WITH THE INTERSTATE 215 WIDENING FROM SCOTT ROAD TO NUEVO ROAD dated March 2012 [Revised April 2013] ("**Mitigation Plan**"), the cover page of which is attached hereto at **Exhibit "D,"**

(2) In-perpetuity maintenance ("**Long-Term Maintenance**") that occurs on the Conservation Property as described in Section 16 herein; or

(3) Activities described in Section 2, Section 4, Section 5, and Section 6 herein.

(c) To the best of Grantor's knowledge, Grantor represents and warrants that the only structures and/or improvements existing on the Conservation Property at the time this grant is executed consists of a fence around the boundaries of the Conservation Property, a constructed earthen berm that runs northwest to southeast across the Conservation Property, three corrugated metal culverts that transport water from the northern half of the Conservation Property into the San Jacinto River, and a second constructed earthen berm that is near and parallel to the east boundary of the Conservation Property. Grantor further represents and warrants that there are no other previously granted easements existing on the Conservation Property that interfere or conflict with the Purpose of this Conservation Easement as evidenced by the Title Report attached at **Exhibit "E."** The present Natural Condition is evidenced in part by the depiction of the Conservation Property attached on **Exhibit "F,"** showing all relevant and plottable property lines, easements, dedications, improvements, boundaries and major, distinct natural features such as waters of the United States. Grantor has delivered further evidence of the present Natural Condition to Grantee and ACOE consisting of (1) a color aerial photograph of the Conservation Property at an appropriate scale taken as close in time as possible to the date this Conservation Easement is executed; (2) an overlay of the Conservation Property boundaries on such aerial photograph; and (3) on-site color photographs showing all man-made improvements or structures (if any) and the major, distinct natural features of the Conservation Property.

(d) If a controversy arises with respect to the present Natural Condition of the Conservation Property, Grantor, Grantee or ACOE or any designees or agents of Grantor, Grantee, and ACOE shall not be foreclosed from utilizing any and all other relevant documents, surveys, photographs or other evidence or information to assist in the resolution of the controversy.

(e) The term "**Biological Monitor**" shall mean either an employee of Grantee or an independent third-party consultant with knowledge of aquatic resources in the Riverside County area and expertise in the field of biology or related field.



2. Grantee's Rights. To accomplish the Purpose of this Conservation Easement, Grantor hereby grants and conveys the following rights to Grantee. These rights, without obligation, are also granted to the ACOE or its designees as third party beneficiaries of this Conservation Easement:

(a) To preserve and protect the Conservation Values of the Conservation Property; and

(b) To enter upon the Conservation Property at reasonable times: (1) in order to monitor the condition of the Conservation Property and to enforce the terms of this Conservation Easement, (2) to fulfill its habitat management obligations pursuant to the MSHCP, and (3) to conduct scientific research and for interpretive purposes, provided, however, that the exercise of such rights by Grantee and ACOE shall not unreasonably interfere with Grantor's authorized use and quiet enjoyment of the Conservation Property. To the extent that Grantee cannot or elects not to take access to the Conservation Property directly from a public right of way or over other property owned or made available to Grantee, Grantor shall designate and provide a reasonable route of access to Grantee over Grantor's property adjacent to the Conservation Property for the purposes authorized under this Conservation Easement. The designated route shall be located so as to minimize interference with activities on such adjacent property, and may be changed from time to time, but in no case more than three times per year, at the convenience of Grantor with written notice to Grantee. If requested by Grantor at any time, or if requested by Grantee at any time more than ten years following the date of this Conservation Easement, Grantor (and any successor to Grantor that owns any servient estate upon which the designated route of access is located) shall designate, and execute and record in the form of an amendment to this Conservation Easement, a permanent easement for access along a fixed specified route designated at that time by Grantor, and jointly agreed to as to location by Grantor and Grantee. Following recording of the amendment, Grantor shall not have the right to subsequently relocate the access route, except upon the written concurrence of Grantee. Grantor shall pay for and provide Grantee with a master key for any and all locks used on gates or fencing that block any access routes to the Conservation Property. ACOE shall also have the right to utilize the access addressed in this subparagraph to the same extent as Grantee; and

(c) To prevent any activity on or use of the Conservation Property that is inconsistent with the Purpose of this Conservation Easement and to require the restoration of such areas or features of the Conservation Property that may be damaged by any act, failure to act, or any use that is inconsistent with the Purpose of this Conservation Easement; and

(d) All mineral, air, and water rights necessary to protect and to sustain the biological resources of the Conservation Property, provided that any exercise of such rights by Grantee shall not result in conflict with such Conservation Values; and

(e) All present and future development rights allocated, implied, reserved or inherent in the Conservation Property; such rights are hereby terminated and extinguished and such present and future development rights may not be used on or transferred to any portion of the Property, nor any other property adjacent or otherwise; and

(f) The right to enforce by any means, including, without limitation, injunctive relief, the terms and conditions of this Conservation Easement; and



(g) The right to enhance native plant communities, including the removal of non-native species, the right to plant trees and shrubs of the same type that currently exist on the Conservation Property, or other appropriate native species. Habitat enhancement activities shall not conflict with the preservation of the Natural Condition of the Conservation Property or the Purpose of this Conservation Easement and shall be performed in compliance with all applicable laws, regulations, and permitting requirements.

3. Prohibited Uses. Any activity on or use of the Conservation Property inconsistent with the Purpose of this Conservation Easement and not reserved as a right of Grantor is prohibited. Without limiting the generality of the foregoing, the following uses by Grantor, Grantee, and their respective guests, agents, assigns, employees, representatives, successors, and third parties are expressly prohibited on the Conservation Property except as otherwise provided herein or unless specifically provided for in the Agency Approval, the Mitigation Plan, and any easements and reservations of rights recorded in the chain of title to the Conservation Property at the time of this conveyance (as set forth on Exhibits E and F hereto):

(a) Unseasonable or supplemental watering except for habitat enhancement activities described in Section 6(b), the Mitigation Plan, or Grantee's habitat enhancement activities set forth in Section 2;

(b) Use of herbicides, pesticides, biocides, fertilizers, or other agricultural chemicals or weed abatement activities, except weed abatement activities necessary to control or remove invasive, exotic plant species as allowed in Section 6(c);

(c) Incompatible fire protection activities except fire prevention activities set forth in Section 6;

(d) Use of off-road vehicles and use of any other motorized vehicles except on existing roadways;

(e) Grazing or other agricultural activity of any kind;

(f) Recreational activities including, but not limited to, horseback riding, biking, hunting or fishing;

(g) Residential, commercial, retail, institutional, or industrial uses;

(h) Any legal or de facto division, subdivision or partitioning of the Conservation Property;

(i) Construction, reconstruction or placement of any building, road, wireless communication cell towers, or any other structure or improvement, except as provided for in Section 6, or any billboard or sign except those signs specifically allowed under Section 4(d);

(j) Dumping soil, trash, ashes, refuse, waste, bio-solids, garbage or any other material;

(k) Planting, gardening, or introduction or dispersal of non-native plant or animal species;



(l) Filling, dumping, excavating, draining, dredging, mining, drilling, removing or exploring for or extraction of minerals, loam, gravel, soil, rock, sand or other material on or below the surface of the Conservation Property;

(m) Altering the general topography of the Conservation Property, including but not limited to building of roads, trails, and flood control work; except as permitted by the Agency Approvals, or as necessary to implement the Mitigation Plan, or any right reserved in Section 6, or Section 16;

(n) Removing, destroying, or cutting of trees, shrubs or other vegetation, except for (1) emergency fire breaks as required by fire safety officials as set forth in Section 6(e), (2) prevention or treatment of disease, (3) control of invasive species which threaten the integrity of the habitat, (4) completing the Mitigation Plan, or (5) activities described in Section 4, Section 5, Section 6, or Section 16;

(o) Manipulating, impounding or altering any natural watercourse, body of water or water circulation on the Conservation Property, and activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters;

(p) Creating, enhancing, and maintaining fuel modification zones (defined as a strip of mowed land or the planting of vegetation possessing low combustibility for purposes of fire suppression) or other activities that could constitute fuel modification zones;

(q) Without the prior written consent of Grantee, which Grantee may withhold, transferring, encumbering, selling, leasing, or otherwise separating the mineral rights or water rights for the Conservation Property; changing the place or purpose of use of the water rights; abandoning or allowing the abandonment of, by action or inaction, any water or water rights, ditch or ditch rights, spring rights, reservoir or storage rights, wells, ground water rights, or other rights in and to the use of water historically used on or otherwise appurtenant to the Conservation Property;

(r) Creation of any encumbrance superior to this Conservation Easement, other than those encumbrances set forth in Exhibit "E" hereto, or the recording of any involuntary lien (which is not released within thirty calendar days), or the grating of any lease, license or similar possessory interest in the Conservation Property which will affect the Conservation Values of the Conservation Property; and

(s) All activities and uses that are otherwise inconsistent with the purposes of the MSHCP.

No use shall be made of the Conservation Property, and no activity thereon shall be permitted that is or is likely to become inconsistent with the Purpose of this Conservation Easement. Grantor and Grantee acknowledge that, in view of the perpetual nature of this Conservation Easement, they are unable to foresee all potential future land uses, future technologies, and future evolution of the land and other natural resources, and other future occurrences affecting the Purpose of this Conservation Easement. Grantee, therefore, in consultation with the ACOE, will determine whether (a) proposed uses or proposed improvements not contemplated by or



addressed in this Conservation Easement or (b) alterations in existing uses or structures, are consistent with the Purposes of this Conservation Easement.

4. Grantor's Duties. To accomplish the Purpose of this Conservation Easement as described in Section 1, RCTC shall undertake the following construction, maintenance and monitoring of mitigated areas pursuant to the Mitigation Plan until issuance of final approval per the Agency Approvals confirming that RCTC has successfully completed construction, maintenance and monitoring of mitigated areas pursuant to the Mitigation Plan ("**Final Approval**"). This duty is non-transferable. Grantor, its successors and assigns shall:

(a) Undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Values of the Conservation Property. In addition, Grantor shall undertake all necessary actions to perfect Grantee's rights under Section 2 of this Conservation Easement;

(b) Cooperate with Grantee, its successors or assigns in the protection of the Conservation Values;

(c) Pursuant to Section 16(d), below, repair and restore damage to the Conservation Property directly or indirectly caused by Grantor, Grantor's guests, representatives, employees or agents, and third parties within Grantor's control; provided, however, Grantor, its successors or assigns shall not engage in any repair or restoration work in the Conservation Property without first consulting with the Grantee, or its successor or assigns and ACOE; and

(d) Within 90 days of recordation of this Conservation Easement, erect signs and other notification features saying "Natural Area Open Space," "Protected Natural Area," or similar descriptions. Prior to erection of such signage, the Grantor shall have its Biological Monitor submit detailed plans showing the location and language of such signs to the Grantee and ACOE for review and approval. The erection and maintenance of informative signage shall not be in direct or potential conflict with the preservation of the Natural Condition of the Conservation Property or the Purpose of this Conservation Easement and shall be performed in compliance with all applicable statutes, regulations, and permitting requirements;

(e) Obtain any applicable governmental permits and approvals for any activity or use permitted by this Conservation Easement, and any activity or use shall be undertaken in accordance with all applicable federal, state, local and administrative agency statutes, ordinances, rules, regulations, orders or requirements;

(f) The Parties explicitly agree that RCTC remains solely and entirely responsible for any mitigation for RCTC's activities not covered by this Conservation Easement, any other mitigation set forth in the Agency Approvals, the Mitigation Plan for the Conservation Property approved by the ACOE and/or any other regulatory permits. The Parties further agree that Grantee shall not be liable, in law or equity, if the Compensatory Mitigation agreed to under this Conservation Easement is determined in any way, by any person or agency, to be insufficient for mitigation or regulatory compliance purposes under applicable statutes, laws and regulations. If any regulatory agency, including but not limited to the ACOE, later determines that the mitigation as set forth in the Agency Approvals is insufficient, RCTC, its heirs, estates, successors, or assigns shall be entirely responsible for satisfying any and all further obligations



that may be imposed upon such determination. No responsibility or liability for the Compensatory Mitigation shall accrue to Grantee;

(g) Grantor acknowledges that notwithstanding which person and/or Party(ies) designed, engineered, constructed, and/or modified all manufactured slopes, fill, cut, berms, and banks within or on the Conservation Property, Grantor accepts full responsibility for such activity and for the condition of any and all pre-existing man-made slopes, fill, cut, berms, and banks on or within the Conservation Property. Grantor agrees that neither ACOE nor Grantee shall be responsible therefor; and

(h) Meet annually with Grantee to review the status of the Conservation Property.

5. Grantee's Duties. To accomplish the Purpose of this Conservation Easement as described in Section 1, Grantee shall:

(a) Perform at least quarterly compliance inspections of the Conservation Property, prepare an annual inspection report that documents the quarterly inspection results, and shall make reports available to the ACOE upon request;

(b) Upon receipt of Final Approval, perform the Long-Term Maintenance of the Conservation Property as described in Section 16;

(c) Pursuant to the requirements of Section 16(e), below, repair and restore damage to the Conservation Property directly or indirectly caused by Grantee, Grantee's guests, representatives, employees or agents, and third parties within Grantee's control provided, however, Grantee, its successors or assigns shall not engage in any repair or restoration work on the Conservation Property without first consulting with Grantor and ACOE.

6. Reserved Rights. Grantor reserves to itself, and to its personal representatives, heirs, successors, and assigns, all rights accruing from its ownership of the Conservation Property, including the right to engage in or to permit or invite others to engage in all uses of the Conservation Property that are not expressly prohibited or limited by, and are consistent with, the Purpose of this Conservation Easement, including the following uses:

(a) Access. Reasonable access through the Conservation Property and Property to adjacent land over existing roads, or to perform obligations or other activities permitted by this Conservation Easement.

(b) Habitat Enhancement Activities. Creation and enhancement of native plant communities, including the right to plant trees and shrubs of the same type as currently existing on the Conservation Property, so long as such activities do not harm the habitat types identified in the Agency Approvals or Mitigation Plan. For purposes of preventing erosion and reestablishing native vegetation, the Grantor shall have the right to revegetate areas that may be damaged by the permitted activities under this Section 6, naturally occurring events or by the acts of persons wrongfully damaging the Natural Condition of the Conservation Property. Prior to any habitat enhancement activities, Grantor shall have a Biological Monitor submit detailed plans to the ACOE for review and approval. Habitat enhancement activities shall not be in direct or potential conflict with the preservation of the Natural Condition of the Conservation Property



or the Purpose of this Conservation Easement and shall be performed in compliance with all applicable statutes, regulations, and permitting requirements.

(c) **Vegetation, Debris, and Exotic Species Removal.** Removal or trimming of vegetation downed or damaged due to natural disaster, removal of man-made debris, removal of parasitic vegetation (as it relates to the health of the host plant) and removal of non-native or exotic plant or animal species. Vegetation, debris, and exotic plant species removal shall not be in direct or potential conflict with the preservation of the Natural Condition of the Conservation Property or the Purpose of this Conservation Easement and shall be performed in compliance with all applicable laws, regulations, and permitting requirements.

(d) **No Interference with Development of Adjoining Property.** Notwithstanding anything set forth herein to the contrary, nothing in this Conservation Easement is intended nor shall be applied to in any way limit Grantor or any of Grantor's successors and assigns from (1) constructing, placing, installing, and/or erecting any improvements upon the portions of the Property not constituting the Conservation Property and/or (2) developing adjoining property for any purposes, except as limited by any local, state or federal permit requirements for such development and provided that for all of the above clauses (1) and (2) neither such activity nor any effect resulting from such activity amounts to a use of the Conservation Property, or has an impact upon the Conservation Property, that is prohibited by Section 3 above.

(e) **Fire Protection.** The right, in an emergency situation only, to maintain firebreaks (defined as a strip of plowed or cleared land made to check the spread of a fire), trim or remove brush, otherwise perform preventative measures required by the fire department to protect structures and other improvements from encroaching fire. All other brush management activities shall be limited to areas outside the Conservation Property.

7. Enforcement.

(a) **Right to Enforce.** Grantor, its successors and assigns, grant to the ACOE, the U.S. Department of Justice, and the State of California a discretionary right to enforce this Conservation Easement in a judicial or administrative action against any person(s) or other entity(ies) violating or attempting to violate this Conservation Easement; provided, however, that no violation of this Conservation Easement shall result in a forfeiture or reversion of title. The ACOE, U.S. Department of Justice, and the State of California shall have the same rights, remedies and limitations as Grantee under this Section 7. The rights under this Section are in addition to, and do not limit rights conferred in Section 2 above, the rights of enforcement against Grantor, Grantee, and their successors or assigns under the Agency Approvals, or any rights of the various documents created thereunder or referred to therein. The term "Party" means Grantor or Grantee, as the case may be. Grantor, Grantee, and any third party beneficiaries, when implementing any remedies under this easement, shall provide timely written notice to each other of any actions taken under this section, including, but not limited to copies of all notices of violation and related correspondence.

(b) **Notice of Violation.** In the event that a Party or its employees, agents, contractors or invitees is in violation of the terms of this Conservation Easement or that a violation is threatened, the non-violating Party and/or third party beneficiaries may demand the cure of such violation. In such a case, the non-violating Party and/or third party beneficiaries



shall issue a written notice to the violating Party (hereinafter "**Notice of Violation**") informing the violating Party of the actual or threatened violations and demanding cure of such violations. The Notice of Violation shall be sent to the other Party and third party beneficiaries listed under Section 14 of this Conservation Easement.

(c) Time to Cure. The violating Party shall cure the noticed violation within thirty (30) days of receipt of said written Notice of Violation. If said cure reasonably requires more than thirty (30) days, the violating Party shall, within the thirty (30) day period, submit to the non-violating Party and/or third party beneficiaries, as the case may be, for review and approval a plan and time schedule to diligently complete a cure. The violating Party shall complete such cure in accordance with the approved plan. If the violating Party disputes the notice of violation, it shall issue a written notice of such dispute (hereinafter "**Notice of Dispute**") to the appropriate Party and/or third party beneficiary within thirty (30) days of receipt of written Notice of Violation.

(d) Failure to Cure. If the violating Party fails to cure the violation within the time period(s) described in Section 7(c), above, or Section 7(e)(2), below, the non-violating Party and/or third party beneficiaries may bring an action at law or in equity in a court of competent jurisdiction to enforce compliance by the violating Party with the terms of this Conservation Easement. In such action, the non-violating Party and/or third party beneficiaries may:

(1) Recover any damages to which they may be entitled for violation by the violating Party of the terms of this Conservation Easement or for any injury to the Conservation Values of the Conservation Property. The non-violating Party shall first apply any damages recovered to the cost of undertaking any corrective action on the Conservation Property. Prior to implementation of any remedial or restorative actions pursuant to this paragraph, ACOE shall be consulted.

(2) Enjoin the violation by temporary or permanent injunction without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies.

(3) Obtain other equitable relief, including, but not limited to, the restoration of the Conservation Property to the condition in which it existed prior to any such violation or injury. This remedy is expressly available notwithstanding the ability to claim damages as provided for in subdivision (1).

(e) Notice of Dispute.

(1) If the violating Party provides the non-violating Party and/or third party beneficiaries with a Notice of Dispute, as provided herein, the non-violating Party and/or third party beneficiaries shall meet and confer with the violating Party at a mutually agreeable place and time, not to exceed thirty (30) days from the date that the non-violating Party and/or third party beneficiaries receive the Notice of Dispute. The non-violating Party and/or third party beneficiaries shall consider all relevant information concerning the disputed violation provided by the violating Party and shall determine whether a violation has in fact occurred and, if so, whether the Notice of Violation and demand for cure issued by the non-violating Party and/or third party beneficiaries is appropriate in light of the violation.



(2) If, after reviewing the violating Party's Notice of Dispute, conferring with the violating Party, and considering all relevant information related to the violation, the non-violating Party and/or third party beneficiaries determine that a violation has occurred, the non-violating Party and/or third party beneficiaries shall give the violating party notice of such determination in writing. Upon receipt of such determination, the violating Party shall have fifteen (15) days to cure the violation. If said cure reasonably requires more than fifteen (15) days, the violating Party shall, within the fifteen (15) day period, submit to the non-violating Party and/or third party beneficiaries for review and approval a plan and time schedule to diligently complete a cure. The violating Party shall complete such cure in accordance with the approved plan.

(f) **Conflicting Notices of Violation.**

(1) If any Party receives a Notice of Violation that is in material conflict with one or more prior written Notices of Violation that have not yet been cured by the Party (hereinafter "**Active Notice(s) of Violation**") such that the conflict makes it impossible for the Party to carry out the cure consistent with all prior Active Notices of Violation, the Party shall give written notice (hereinafter "**Notice of Conflict**") to the non-violating Party and/or third party beneficiaries issuing the later, conflicting Notice(s) of Violation. The Party shall issue said Notice of Conflict to the appropriate non-violating Party and/or third party beneficiaries within fifteen (15) days of the receipt of each such conflicting Notice of Violation. A valid Notice of Conflict shall describe the conflict with specificity, including a description of how the conflict makes compliance with all Active Notices of Violation impossible.

(2) Upon issuing a valid Notice of Conflict to the appropriate non-violating Party and/or third party beneficiaries, as described above, the violating Party shall not be required to carry out the cure described in the conflicting Notice or Notices of Violation until such time as the non-violating Party responsible for said conflicting Notice(s) of Violation issue(s) a revised Notice of Violation that is consistent with prior Active Notices of Violation. Upon receipt of a revised, consistent Notice of Violation, the violating Party shall carry out the cure recommended in such notice within the time period(s) described in Section 7(c) above. Notwithstanding Section 7(g), failure to cure within said time period(s) shall entitle the non-violating Party to the remedies described in Section 7(d) and Section 7(h).

(3) The failure of the violating Party to issue a valid Notice of Conflict within fifteen (15) days of receipt of a conflicting Notice of Violation shall result in a waiver of the violating Party's ability to claim a conflict.

(g) **Immediate Action.** In the event that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values of the Conservation Property, the Party and/or third party beneficiary seeking enforcement pursuant to Section 7(b) above may immediately pursue all available remedies, including injunctive relief, available pursuant to both this Conservation Easement and state and federal law after giving the violating Party at least twenty four (24) hours' written notice before pursuing such remedies. So long as such twenty-four (24) hours' notice is given, the non-violating Party may immediately pursue all available remedies without waiting for the expiration of the time periods provided for cure or Notice of Dispute as described in Section 7(c). The written notice pursuant to this paragraph may be transmitted to the violating Party by facsimile and shall be copied to the other Party and/or third party beneficiaries listed in Section 14 of this Conservation Easement. The rights of



the non-violating Party and/or third party beneficiaries under this paragraph apply equally to actual or threatened violations of the terms of this Conservation Easement. The violating Party agrees that the remedies at law for any violation of the terms of this Conservation Easement are inadequate and that the non-violating Party and third party beneficiaries shall be entitled to the injunctive relief described in this section, both prohibitive and mandatory, in addition to such other relief to which they may be entitled, including specific performance of the terms of this Conservation Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. The remedies described in this Section 7(g) shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity, including but not limited to, the remedies set forth in Civil Code Section 815, *et seq.*, inclusive.

(h) **Costs of Enforcement.** Any costs incurred by a Party in enforcing the terms of this Conservation Easement against another Party, including, but not limited to, costs of suit and attorneys' fees, and any costs of restoration necessitated by a Party's violation or negligence under the terms of this Conservation Easement shall be borne by the violating Party.

(i) **Enforcement Discretion.** Enforcement of the terms of this Conservation Easement by a Party and/or third party beneficiary shall be at the discretion of the Party and/or third party beneficiary, and any forbearance by such Party and/or third party beneficiary to exercise its rights under this Conservation Easement in the event of any breach of any term of the Conservation Easement by a Party or any subsequent transferee shall not be deemed or construed to be a waiver by the non-violating Party and third party beneficiary of such terms or of any subsequent breach of the same or any other term of this Conservation Easement or of any of the rights of the non-violating Party and third party beneficiary under this Conservation Easement. No delay or omission by the non-violating Party and/or third party beneficiaries in the exercise of any right or remedy upon any breach by the violating Party shall impair such right or remedy or be construed as a waiver. Further, nothing in this Conservation Easement creates a non-discretionary duty upon the non-violating Party and/or third party beneficiaries to enforce its provisions, nor shall deviation from these terms and procedures, or failure to enforce its provisions give rise to a private right of action against the non-violating Party and/or third party beneficiaries by any third parties.

(j) **Acts Beyond Grantor's Control.** Nothing contained in this Conservation Easement shall be construed to entitle Grantee, its successors and assigns to bring any action against Grantor, its successors or assigns for any injury to or change in the Conservation Property resulting from:

(1) Any natural cause beyond Grantor's control, including without limitation, fire not caused by Grantor, flood, storm, and earth movement;

(2) Any prudent action taken by Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Conservation Property resulting from such causes; provided that once the emergency has abated, Grantor, its successors or assigns promptly take all reasonable and necessary actions required to restore the Conservation Property to the condition it was in immediately prior to the emergency;

(3) Acts by Grantee, ACOE, or their employees, directors, officers, agents, contractors, or representatives; or



(4) Acts of third parties (including any governmental agencies) that are beyond Grantor's control.

Notwithstanding the foregoing, Grantor must obtain any applicable governmental permits and approvals for any emergency activity or use permitted by this Conservation Easement, and undertake any activity or use in accordance with all applicable federal, state, local and administrative agency statutes, ordinances, rules, regulations, orders or requirements.

(k) Acts Beyond Grantee's Control. Nothing contained in this Conservation Easement shall be construed to entitle Grantor, its successors or assigns to bring any action against Grantee, its successors or assigns for any injury to or change in the Conservation Property resulting from:

(1) Any natural cause beyond Grantee's control, including without limitation, fire not caused by Grantee, flood, storm, and earth movement;

(2) Any prudent action taken by Grantee under emergency conditions to prevent, abate, or mitigate significant injury to the Conservation Property resulting from such causes; provided that once the emergency has abated, Grantee, its successors or assigns promptly take all reasonable and necessary actions required to restore the Conservation Property to the condition it was in immediately prior to the emergency;

(3) Acts by Grantor, ACOE or their employees, directors, officers, agents, contractors, or representatives; or

(4) Acts of third parties (including any governmental agencies) that are beyond Grantee's control.

Notwithstanding the foregoing, Grantee must obtain any applicable governmental permits and approvals for any emergency activity or use permitted by this Conservation Easement, and undertake any activity or use in accordance with all applicable federal, state, local and administrative agency statutes, ordinances, rules, regulations, orders or requirements.

8. Access. This Conservation Easement does not convey a general right of access to the public or a general right of access to the Conservation Property. In accordance with Section 4(d), Grantor shall install signage at all likely points of entry informing persons of the nature and restrictions on the Conservation Property. This Conservation Easement will allow for access to the Conservation Property by the ACOE and third-party easement holders of record at the time of this conveyance at locations designated in easements and reservations of rights recorded in the chain of title to the Conservation Property at the time of this conveyance.

9. Costs and Liabilities.

(a) Grantor, its successors and assigns retain all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance (except Long-Term Maintenance pursuant to Section 16) of the Conservation Property. Grantor agrees Grantee and ACOE shall not have any duty or responsibility for the operation, upkeep, or maintenance (except Long-Term Maintenance pursuant to Section 16) of the Conservation Property, the monitoring of hazardous conditions thereon, or the protection of Grantor, the public



or any third parties from risks relating to conditions on the Conservation Property. Grantor, its successor or assign remains solely responsible for obtaining any applicable governmental permits and approvals for any activity or use permitted by this Conservation Easement, and any activity or use shall be undertaken in accordance with all applicable federal, state, local and administrative agency statutes, ordinances, rules, regulations, orders and requirements.

(b) Hold Harmless.

(1) Grantor, its successors and assigns, shall hold harmless, protect, defend and indemnify ACOE and its respective directors, officers, employees, agents, contractors, and representatives and the heirs, personal representatives, successors and assigns of each of them (each a "**ACOE Indemnified Party**" and collectively, "**ACOE Indemnified Parties**") from and against any and all liabilities, penalties, costs, losses, damages, expenses (including, without limitation reasonable attorneys' fees and experts' fees), causes of action, claims, demands, orders, liens or judgments (each a "**Claim**" and, collectively "**Claims**"), arising from or in any way connected with injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Conservation Property, regardless of cause unless caused by the negligence or willful misconduct of any of the ACOE Indemnified Parties.

(2) Mutual Indemnity Between Grantor and Grantee.

(i) Grantor, its successors and assigns, shall hold harmless, protect and indemnify Grantee and its directors, officers, employees, agents, contractors, representatives, volunteers and the heirs, personal representatives, successors and assigns of each of them (each a "**Grantee Indemnified Party**" and collectively, "**Grantee Indemnified Parties**") from and against any and all Claims which are in contravention of this Conservation Easement, arising from or in any way connected with: injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Conservation Property caused by Grantor unless caused by the negligence or willful misconduct of any of the Grantee Indemnified Parties. If any action or proceeding is brought against any of the Grantee Indemnified Parties by reason of any Claim to which the indemnification in this Section 9(b)(2)(i) applies, then at the election of and upon written notice from the Grantee Indemnified Party, Grantor shall defend such action or proceeding by counsel reasonably acceptable to the applicable Grantee Indemnified Party or reimburse the Grantee Indemnified Party for all expenses (including, without limitation, reasonable attorneys' and experts' fees) incurred in defending the action or proceeding.

(ii) Grantee, its successors and assigns, shall hold harmless, protect and indemnify Grantor and its directors, officers, employees, agents, contractors, representatives, volunteers and the heirs, personal representatives, successors and assigns of each of them (each a "**Grantor Indemnified Party**" and collectively, "**Grantor Indemnified Parties**") from and against any and all Claims arising from or in any way connected with: injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Conservation Property caused by Grantee unless caused by the negligence or willful misconduct of any of the Grantor Indemnified Parties. If any action or proceeding is brought against any of the Grantor Indemnified Parties by reason of any Claim to which the indemnification in this Section 9(b)(2)(ii) applies, then at the election of and upon written notice from the Grantor Indemnified



Party, Grantee shall defend such action or proceeding by counsel reasonably acceptable to the applicable Grantor Indemnified Party or reimburse the Grantor Indemnified Party for all expenses (including, without limitation, reasonable attorneys' and experts' fees) incurred in defending the action or proceeding.

10. Taxes, No Liens. Grantor and its successors and assigns shall pay before delinquency all taxes, assessments, fees, and charges of whatever description levied on or assessed against the Property by competent authority, including any taxes imposed upon, or incurred as a result of, this Conservation Easement, and shall furnish Grantee and ACOE with satisfactory evidence of payment, if assessed, upon request. Grantor, Grantee, and their successors and assigns shall keep the Conservation Property free from any liens. Should either Grantor's work or Grantee's work in or upon the Conservation Property result in a lien on the Conservation Property, Grantor or Grantee, as the case may be, shall take all steps required to have said lien removed from the Conservation Property.

11. Condemnation. If the Conservation Property is taken, in whole or in part, by exercise of the power of eminent domain, Grantor and Grantee shall be entitled to compensation in accordance with applicable law.

12. Subsequent Transfers.

(a) By Grantee.

(1) This Conservation Easement is transferable by Grantee, but Grantee may assign its rights and delegate obligations under this Conservation Easement only to an entity or organization authorized to acquire and hold conservation easements pursuant to Civil Code Section 815.3 and Government Code Section 65965-65968 (or any successor provision(s) then applicable) provided that ACOE is satisfied there is adequate financial security to assure the performance of Grantee's duties, including but not limited to Long-Term Maintenance obligations under this Conservation Easement and only with the prior written approval of Grantor and ACOE; and

(2) Grantee shall record the assignment in the County of Riverside.

(b) By Grantor.

(1) The covenants, conditions, and restrictions contained in this Conservation Easement are intended to and shall run with the land and bind all future owners of any interest in the Conservation Property. Grantor, its successor or assign agrees to (i) incorporate by reference to the title of and the recording information for this Conservation Easement in any deed or other legal instrument by which each divests itself of any interest in all or a portion of the Conservation Property, including, without limitation, a leasehold interest and (ii) give actual notice to any such transferee or lessee of the existence of this Conservation Easement. Grantor, its successor and assign agrees to give written notice to Grantee and ACOE of the intent to transfer any interest at least sixty (60) days prior to the date of such transfer. The failure of Grantor, its successor or assign to perform any act provided in this Section 12 shall not impair the validity of this Conservation Easement or limit its enforceability in any way, and Grantor, its successors or assigns assume any liability relating to transfer(s) or assignment(s) to bona fide purchasers without notice of the existence or terms of this Conservation Easement.



(2) Grantor may elect to convey the Conservation Property to Grantee in fee title, subject to Grantee's approval, or another land conservation management organization. If a qualified entity other than the Grantee accepts fee title to the Conservation Property, the Grantee shall maintain its role as the Grantee under this Conservation Easement. If the Grantee accepts fee title to the Conservation Property, the Grantee shall first assign this Conservation Easement to a willing third party pursuant to the terms of Section 12(a) of this Conservation Easement.

(3) From and after the date of any transfer of all or any portion of the Conservation Property by Grantor and each transfer thereafter, (i) the transferee shall be deemed to have assumed all of the obligations of Grantor as to the portion transferred, as set forth in this Conservation Easement, (ii) the transferee shall be deemed to have accepted the restrictions contained herein as to the portion transferred, (iii) the transferor, as applicable, shall have no further obligations hereunder except for any obligations pursuant to Section 4 as it relates to Compensatory Mitigation and Section 19(g), and (iv) all references to Grantor in this Conservation Easement shall thereafter be deemed to refer to such transferee.

13. Additional Interests. Grantor, its successors and assigns shall not grant additional easements or other interests in the surface or subsurface of the Conservation Property (other than a security interest that is subordinate to this Conservation Easement) without the prior written authorization of Grantee and ACOE. It shall be reasonable for Grantee and ACOE to withhold consent for the grant of additional easements or other interest in the Conservation Property that are in direct or potential conflict with the Agency Approvals and the preservation of the Purpose and the Natural Condition of the Conservation Property as defined in Section 1 of this Conservation Easement or will impair or otherwise interfere with the Conservation Values of the Conservation Property. Grantor or its successors and assigns shall record any additional easements or other interests in the Conservation Property approved by Grantee and ACOE, in the official records of Riverside County, California and shall provide a copy of the recorded document to Grantee and ACOE.

14. Notices. All notices, demands, requests, consents, approvals, or communications from one party to another shall be personally delivered or sent by facsimile to the persons set forth below or shall be deemed given five (5) days after deposit in the United States mail, certified and postage prepaid, return receipt requested, and addressed as follows, or at such other address as any Party may from time to time specify to the other parties in writing:

To Grantor: Riverside County Transportation Commission
4080 Lemon Street, 3rd Floor
P.O. Box 12008
Riverside, California 92502-2208
Attn: Executive Director
Phone: (951) 787-7141
FAX: (951) 787-7920

To Grantee: Western Riverside County
Regional Conservation Authority
3403 Tenth Street, Suite 320
P.O. Box 1667



Riverside, California 92502-1667
Attn: Executive Director
Phone: (951) 955-9700
FAX: (951) 955-8873

With a copy to: District Counsel
U.S. Army Corps of Engineers
Los Angeles District
915 Wilshire Boulevard, Room 1535
Los Angeles, California 90017-3401
FAX: 213-452-4217

15. Amendment. Grantor and Grantee may amend this Conservation Easement only by mutual written agreement and with the written consent of the ACOE. Any such amendment shall be consistent with the Purpose of this Conservation Easement and shall not affect its perpetual duration. Grantor shall record any amendments to this Conservation Easement approved by the Grantee and ACOE in the official records of Riverside County, California and shall provide a copy of the recorded document to the Grantee and ACOE.

16. Long-Term Maintenance.

(a) Grantee's Responsibilities for Maintenance and Management. Grantee, its successors and assigns shall be responsible for in-perpetuity, ongoing, long-term maintenance and management of the Conservation Property in accordance with the LONG TERM MANAGEMENT PLAN FOR THE 0.70 ACRE VERNAL POOLS AND 5.1 ACRE OF ASSOCIATED WATERSHED MITIGATION SITE AND OCCUPIED SAN JACINTO VALLEY CROWNSCALE HABITAT AND OCCUPIED SMOOTH TARPLANT HABITAT WITHIN THE MITIGATION SITE FOR IMPACTS TO AREAS WITHIN THE JURISDICTION OF THE UNITED STATES ARMY CORPS OF ENGINEERS PURSUANT TO SECTION 404 OF THE CLEAN WATER ACT, SANTA REGIONAL WATER QUALITY CONTROL BOARD PURSUANT OF SECTION 401 OF THE CLEAN WATER ACT, CALIFORNIA DEPARTMENT OF WILDLIFE PURSUANT TO DEPARTMENT OF FISH AND GAME CODE, AND THE UNITED STATES FISH AND WILDLIFE SERVICE PURSUANT TO BIOLOGICAL OPINION PURSUANT TO SECTION 7 OF THE ENDANGERED SPECIES ACT ASSOCIATED WITH THE INTERSTATE 215 WIDENING FROM SCOTT ROAD TO NUEVO ROAD (May 2013), the cover page of which is attached hereto at **Exhibit "G"**.

(b) Restoration Responsibilities. Grantor, Grantee, their successors and assigns shall each individually be obligated to repair, remediate, or restore the Conservation Property damaged by any activities prohibited by Section 3 herein for which it is responsible.

(c) Annual Reporting. Grantee, its successors and assigns shall prepare an annual monitoring and maintenance report documenting activities performed under Section 16(a) above, and shall make such report available to the Grantor and ACOE upon request.

(d) Grantor Restoration. When activities are performed pursuant to Section 16(b) for which the Grantor is responsible, Grantee, its successors and assigns, shall retain, at Grantor's expense, a qualified Biological Monitor to prepare a Restoration Plan and to

- 17 -



oversee/monitor such restoration activities. Grantee shall have its Biological Monitor submit a draft Restoration Plan to Grantor and ACOE for review and for ACOE written approval prior to its implementation. Upon completion of restoration as specified in the approved Restoration Plan, Grantee shall have a Biological Monitor prepare a detailed monitoring report, and Grantee shall make the report available to Grantor and ACOE within thirty (30) days of completion of restoration activities. Grantee, its successors or assigns and Biological Monitor shall sign the monitoring report, and the report shall document the Biological Monitor's name and affiliation, dates Biological Monitor was present on-site, activities observed and their location, Biological Monitor's observations regarding the adequacy of restoration performance by the Grantee, its successors or assigns, or its contractor in accordance with the approved Restoration Plan, corrections recommended and implemented. Grantor shall be responsible for compensating and/or reimbursing Biological Monitor and Grantee for all reasonable and ordinary expenses incurred by them in discharging their respective responsibilities under this subsection within thirty (30) days of invoice.

(e) Grantee Restoration. When activities are performed pursuant to Section 16(b) for which Grantee is responsible, Grantee shall retain, at Grantee's expense, a qualified Biological Monitor to prepare a Restoration Plan and to oversee/monitor such restoration activities. Grantee shall have a Biological Monitor submit a draft Restoration Plan to ACOE for review and written approval prior to its implementation. Upon completion of restoration as specified in the approved Restoration Plan, Grantee shall have a Biological Monitor prepare a detailed monitoring report, and Grantee shall make the report available to ACOE within thirty (30) days of completion of restoration activities. Grantee, its successors or assigns and Biological Monitor shall sign the monitoring report, and the report shall document the Biological Monitor's name and affiliation, dates Biological Monitor was present on-site, activities observed and their location, Biological Monitor's observations regarding the adequacy of restoration performance by the Grantee, its successors or assigns, or its contractor in accordance with the approved Restoration Plan, corrections recommended and implemented.

17. Recordation. Grantee shall promptly record this instrument in the official records of Riverside County, California and immediately notify the Grantor and ACOE through the mailing of a conformed copy of the recorded easement.

18. Estoppel Certificate. Upon request, Grantee shall within fifteen (15) days execute and deliver to Grantor, its successors and assigns any document, including an estoppel certificate, which certifies compliance with any obligation of Grantor, its successors and assigns contained in this Conservation Easement and otherwise evidences the status of this Conservation Easement as may be requested by Grantor, its successors and assigns.

19. General Provisions.

(a) Controlling Law. The laws of the United States and the State of California, disregarding the conflicts of law principles of such state, shall govern the interpretation and performance of this Conservation Easement.

(b) Liberal Construction. Any general rule of construction to the contrary notwithstanding, this Conservation Easement shall be liberally construed in favor of and to effect the Purpose of this Conservation Easement and the policy and purpose set forth in California Civil Code Section 815, *et seq.* If any provision in this instrument is found to be ambiguous, an



interpretation consistent with the Purpose of this Conservation Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

(c) **Change of Conditions.** If one or more of the Purposes of this Conservation Easement may no longer be accomplished, such failure of purpose shall not be deemed sufficient cause to terminate the entire Conservation Easement as long as any other purpose of the Conservation Easement may be accomplished. In addition, the inability to carry on any or all of the permitted uses, or the unprofitability of doing so, shall not impair the validity of this Conservation Easement or be considered grounds for its termination or extinguishment. Grantor and Grantee agree that global warming and climate change-caused effects shall not be a basis for termination of this Conservation Easement.

(d) **Severability.** If a court of competent jurisdiction voids or invalidates on its face any provision of this Conservation Easement, such action shall not affect the remainder of this Conservation Easement. If a court of competent jurisdiction voids or invalidates the application of any provision of this Conservation Easement to a person or circumstance, such action shall not affect the application of the provision to other persons or circumstances.

(e) **Entire Agreement.** This instrument together with the attached exhibits and any documents referred to herein sets forth the entire agreement of the parties with respect to the Conservation Easement and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Conservation Easement. No alteration or variation of this instrument shall be valid or binding unless contained in an amendment in accordance with Section 15.

(f) **No Forfeiture.** Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

(g) **Successors and Assigns.** The covenants, terms, conditions, and restrictions of this Conservation Easement shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall constitute a servitude running in perpetuity with the Conservation Property. The covenants hereunder benefiting Grantee shall also benefit the ACOE as a third party beneficiary.

(h) **Termination of Rights and Obligations.** Provided the transfer was consistent with the terms of this Conservation Easement, a party's rights and obligations under this Conservation Easement shall terminate upon transfer of the party's interest in the Conservation Easement or Conservation Property (respectively), except that liability for acts or omissions occurring prior to transfer shall survive transfer. However, in those provisions where the term "RCTC" is used in this Conservation Easement, and not the term "Grantor," those provisions shall be called "**Specific Obligations**" and shall apply exclusively to RCTC and shall not be transferred to the RCA upon conveyance of the RCTC's interest in the Conservation Easement or Conservation Property.

(i) **Captions.** The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon its construction or interpretation.

(j) **Counterparts.** The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by all parties; each counterpart shall be



deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

(k) Exhibits. All Exhibits referred to in this Conservation Easement are attached and incorporated herein by reference.

(l) No Hazardous Materials Liability. Grantor represents it is unaware of any release or threatened release of Hazardous Materials (defined below) or underground storage tanks existing, generated, treated, stored, used, released, disposed of, deposited or abandoned in, on, under, or from the Conservation Property, or transported to or from or affecting the Conservation Property.

(1) Without limiting the obligations of Grantor under Section 9(b)(1) herein, Grantor hereby releases and agrees to indemnify, protect, defend, and hold harmless the ACOE Indemnified Parties (defined in Section 9(b)(1)) against any and all Claims (defined in Section 9(b)(1)) arising from or connected with any Hazardous Materials present, alleged to be present, or otherwise associated with the Conservation Property at any time, except that this release and indemnification shall be inapplicable to the ACOE Indemnified Parties with respect to any Hazardous Materials placed, disposed or released by ACOE Indemnified Parties, their employees or agents. This release and indemnification includes, without limitation, Claims for (i) injury to or death of any person or physical damage to any property; and (ii) Grantor's violation or alleged violation of, or other failure to comply with, any Environmental Laws (defined below).

(2) Without limiting the obligations of Grantor or Grantee under Section 9(b)(2) herein, Grantor hereby releases and agrees to indemnify, protect and hold harmless the Grantee Indemnified Parties (defined in Section 9(b)(2)) against any and all Claims (defined in Section 9(b)(1)) arising from or connected with any Hazardous Materials present, alleged to be present, or otherwise associated with the Conservation Property at any time, except that this release and indemnification shall be inapplicable to Grantee Indemnified Parties with respect to any Hazardous Materials placed, disposed or released by Grantee Indemnified Parties, their employees or agents. This release and indemnification includes, without limitation, Claims for (i) injury to or death of any person or physical damage to any property; and (ii) Grantor's violation or alleged violation of, or other failure to comply with, any Environmental Laws (defined below). If any action or proceeding is brought against any of the Grantee Indemnified Parties by reason of any such Claim, Grantor shall, at the election of and upon written notice from the applicable Grantee Indemnified Party or Grantee Indemnified Parties, defend such action or proceeding by counsel reasonably acceptable to the applicable Grantee Indemnified Party or Parties or reimburse the Grantee Indemnified Party or Parties for all expenses (including, without limitation, reasonable attorneys' and experts' fees) incurred in defending the action or proceeding.

(3) Despite any contrary provision of this Conservation Easement, the parties do not intend this Conservation Easement to be, and this Conservation Easement shall not be, construed such that it creates in or gives Grantee and ACOE any of the following:

(i) The obligations or liabilities of an "owner" or "operator," as those terms are defined and used in Environmental Laws (defined below), including, without



limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. Section 9601 et seq.; hereinafter, "**CERCLA**"); or

(ii) The obligations or liabilities of a person described in 42 U.S.C. Section 9607(a)(3) or (4); or

(iii) The obligations of a responsible person under any applicable Environmental Laws; or

(iv) The right to investigate and remediate any Hazardous Materials associated with the Property unless said investigation or remediation is related to the investigation or remediation of the Conservation Property; or

(v) Any control over Grantor's ability to investigate, remove, remediate or otherwise clean up any Hazardous Materials associated with the Property unless said investigation or remediation by Grantor is related to the Conservation Property.

The term "**Hazardous Materials**" includes, without limitation, (a) material that is flammable, explosive or radioactive; (b) petroleum products, including by-products and fractions thereof; and (c) hazardous materials, hazardous wastes, hazardous or toxic substances, or related materials defined in CERCLA; Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.); the Hazardous Materials Transportation Act (49 U.S.C. Section 5101 et seq.); the Hazardous Waste Control Law (California Health & Safety Code Section 25100 et seq.); the Hazardous Substance Account Act (California Health & Safety Code Section 25300 et seq.), and in the regulations adopted and publications promulgated pursuant to them, or any other applicable federal, state or local laws, ordinances, rules, regulations or orders now in effect or enacted after the date of this Conservation Easement.

The term "**Environmental Laws**" includes, without limitation, any federal, state, local or administrative agency statute, ordinance, rule, regulation, order or requirement relating to pollution, protection of human health or safety, the environment or Hazardous Materials. Grantor and Grantee represents, warrants and covenants to each other and to ACOE that Grantor and Grantee's activities upon and use of the Conservation Property will comply with all Environmental Laws.

(m) Extinguishment. If circumstances arise in the future that render the Purpose of this Conservation Easement impossible to accomplish, this Conservation Easement can only be terminated or extinguished, in whole or in part, by judicial proceedings in a court of competent jurisdiction.

(n) Warranty. Grantor represents and warrants that there are no outstanding mortgages, liens, deeds of trust, encumbrances or other interests in the Conservation Property (including, without limitation, mineral interests) which have not been expressly subordinated to this Conservation Easement, and that the Conservation Property is not subject to any other conservation easement.

(o) No Merger. Grantor and Grantee agree that should Grantee, or any successor in interest to Grantee, come to own all or a portion of the fee interest subject to this Conservation Easement, there shall be no express or implied merger by operation of law or



otherwise. If any party should claim such a merger, the parties agree that any and all terms and conditions of this Conservation Easement shall be deemed covenants and restrictions upon the Conservation Property, which, shall run with the land according to California and/or other applicable law and otherwise exist in perpetuity.

IN WITNESS WHEREOF Grantor and Grantee have executed this Conservation Easement the day and year first above written and have agreed to be bound by the terms and provisions hereof.

GRANTOR:
RIVERSIDE COUNTY TRANSPORTATION
COMMISSION, a county transportation
commission

By:





Name



Title

[ATTACH NOTARY ACKNOWLEDGEMENT]



CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of

Riverside

On

5/22/13

Date

before me,

Gina Gallagher, Notary Public

Here Insert Name and Title of the Officer

personally appeared

Anne Mayer

Name(s) of Signer(s)



who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Gina Gallagher

Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document:

Document Date:

Number of Pages:

Signer(s) Other Than Named Above:

Capacity(ies) Claimed by Signer(s)

Signer's Name:

- ☐ Individual
- ☐ Corporate Officer — Title(s):
- ☐ Partner — ☐ Limited ☐ General
- ☐ Attorney in Fact
- ☐ Trustee
- ☐ Guardian or Conservator
- ☐ Other:

Signer Is Representing:

RIGHT THUMBPRINT
OF SIGNER
Top of thumb here

Signer's Name:

- ☐ Individual
- ☐ Corporate Officer — Title(s):
- ☐ Partner — ☐ Limited ☐ General
- ☐ Attorney in Fact
- ☐ Trustee
- ☐ Guardian or Conservator
- ☐ Other:

Signer Is Representing:

RIGHT THUMBPRINT
OF SIGNER
Top of thumb here





LARRY W. WARD
COUNTY OF RIVERSIDE
ASSESSOR-COUNTY CLERK-RECORDER

Recorder
P.O. Box 751
Riverside, CA 92502-0751
(951) 486-7000

www.riversideacr.com

NOTARY CLARITY

Under the provisions of Government Code 27361.7, I certify under the penalty of perjury that the notary seal on the document to which this statement is attached reads as follows:

Name of Notary: Gina Gallagher

Commission #: 2019355

Place of Execution: Riverside Co.

Date Commission Expires: April 12, 2017

Date: 5/23/13

Signature: Tara S Byerly

Print Name: Tara S Byerly



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CERTIFICATE OF ACCEPTANCE

This is to certify that the Conservation Easement conveyed by RIVERSIDE COUNTY TRANSPORTATION COMMISSION, a California county transportation commission, to the Western Riverside County Regional Conservation Authority ("Grantee"), is hereby accepted by the undersigned officer on behalf of the Grantee, pursuant to authority conferred by Ordinance No. 08-01, as adopted by the Board of Directors on July 7, 2008.

GRANTEE:
WESTERN RIVERSIDE COUNTY REGIONAL
CONSERVATION AUTHORITY, a joint powers
authority and a public agency

Date: _____

5/22/2013

By: _____

Charles V. Landry, Executive Director

Approved as to Form

By: _____

Best, Best & Krieger LLP
General Counsel



Exhibit A

Legal Description of Property

26493.00305\7547016.8



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PSOMAS

EXHIBIT 'A'

LEGAL DESCRIPTION

MITIGATION PARCEL

In the County of Riverside, State of California, being the land described in the Grant Deed recorded December 20, 2011 as Instrument No. 2011-0562724, Official Records of said County, excepting therefrom that portion of said land lying northeasterly of a line, and its northwesterly prolongation, being parallel with and 200.00 feet southwesterly of the tangent portion of the centerline of Ramona Expressway, having a bearing and distance of "North 70°01'31" West 3000.79 feet", as shown on the map filed in Book 97, Pages 46 through 55, inclusive, of Records of Survey, in the office of the County Recorder of said County.

All as shown on Exhibit "B" attached hereto and made a part hereof.

This legal description is not intended to be used in the conveyance of land in violation of the Subdivision Map Act of the State of California.

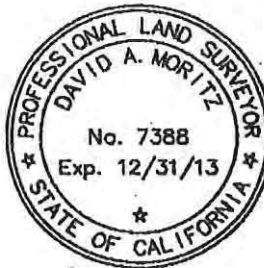
This legal description was prepared by me or under my direction.

David A. Moritz

David A. Moritz, PLS 7388

12/11/2012

Date



PSOMAS

Exhibit A
of Conservation Easement

EXHIBIT 'A'

LEGAL DESCRIPTION

REMAINDER PARCEL

In the County of Riverside, State of California, being that portion of the land described in the Grant Deed recorded December 20, 2011 as Instrument No. 2011-0562724, Official Records of said County, lying northeasterly of a line, and its northwesterly prolongation, being parallel with and 200.00 feet southwesterly of the tangent portion of the centerline of Ramona Expressway, having a bearing and distance of "North 70°01'31" West 3000.79 feet", as shown on the map filed in Book 97, Pages 46 through 55, inclusive, of Records of Survey, in the office of the County Recorder of said County.

All as shown on Exhibit "B" attached hereto and made a part hereof.

This legal description is not intended to be used in the conveyance of land in violation of the Subdivision Map Act of the State of California.

This legal description was prepared by me or under my direction.

David A. Moritz

David A. Moritz, PLS 7388

12/11/2012

Date



Exhibit B

Legal Description of the Conservation Property

26493.00305\7547016.8



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PSOMAS

EXHIBIT 'A'

LEGAL DESCRIPTION

MITIGATION PARCEL

In the County of Riverside, State of California, being the land described in the Grant Deed recorded December 20, 2011 as Instrument No. 2011-0562724, Official Records of said County, excepting therefrom that portion of said land lying northeasterly of a line, and its northwesterly prolongation, being parallel with and 200.00 feet southwesterly of the tangent portion of the centerline of Ramona Expressway, having a bearing and distance of "North 70°01'31" West 3000.79 feet", as shown on the map filed in Book 97, Pages 46 through 55, inclusive, of Records of Survey, in the office of the County Recorder of said County.

All as shown on Exhibit "B" attached hereto and made a part hereof.

This legal description is not intended to be used in the conveyance of land in violation of the Subdivision Map Act of the State of California.

This legal description was prepared by me or under my direction.

David A. Moritz

David A. Moritz, PLS 7388

12/11/2012

Date



Exhibit C

Depiction of the Conservation Property

26493.00305\7547016.8

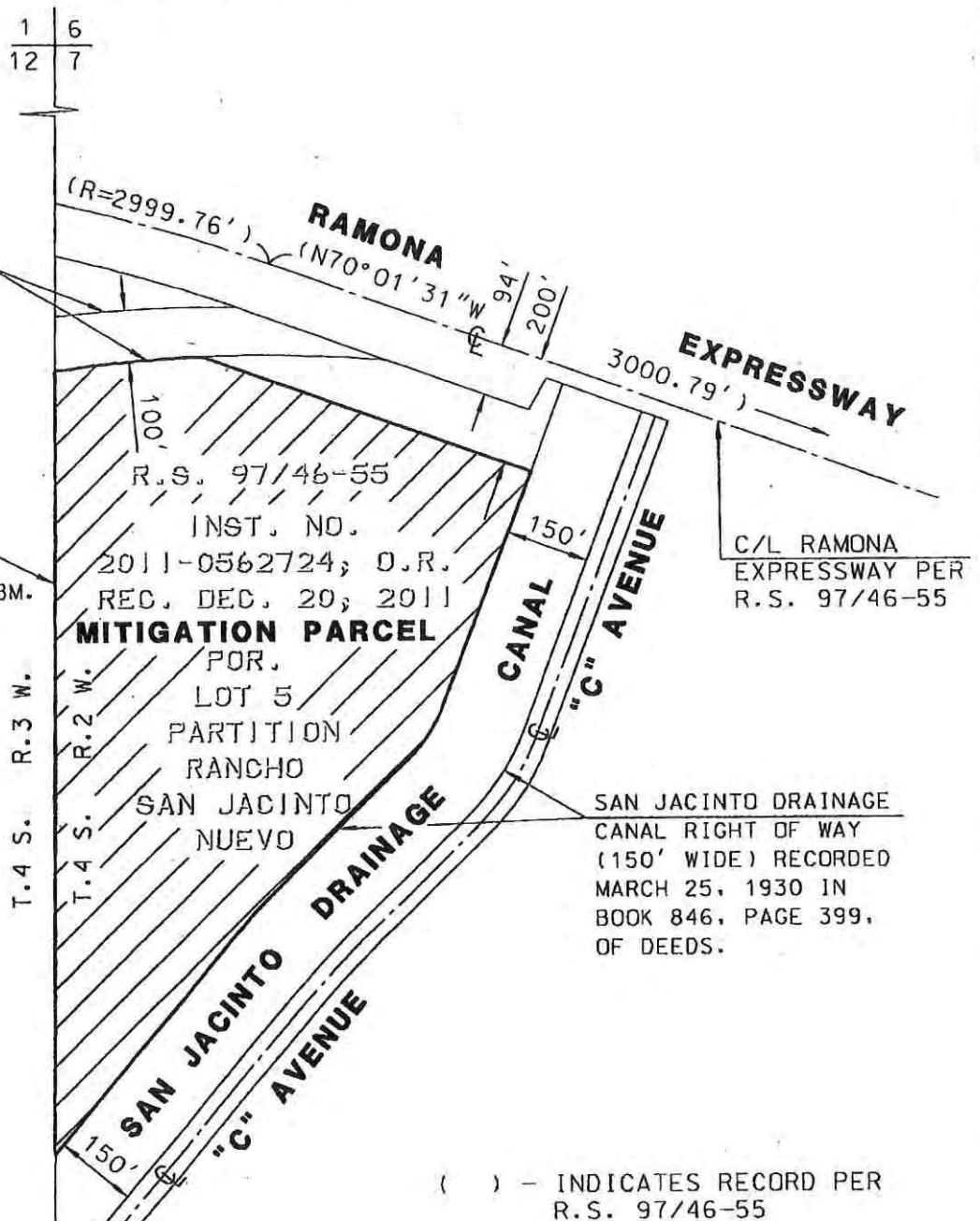


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EXHIBIT "B" of Conservation Easement

100' WIDE STRIP OF
LAND CONVEYED TO
PERRIS AND LAKEVIEW
RAILWAY COMPANY
BY DEED RECORDED
NOVEMBER 19, 1898
IN BOOK 76, PAGE 91
OF DEEDS.

WEST LINE OF
SECTION 7,
T.4S. R.2W., SBM.



NOT TO SCALE

DESCRIPTION:

PORTION OF INST. NO. 2011-0562724, O.R., IN THE COUNTY OF RIVERSIDE,
STATE OF CALIFORNIA

PSOMAS

3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714.751.7373
714.545.8883 (Fax)

SHEET 1 OF 1

SCALE NONE

DRAFTED RTN/KVO

CHECKED DAM

DATE 12/07/2012

JOB
NUMBER 2URS201003



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M:\2URS201003\SURVEY\DESIGN\EXHIBIT-B\MITIGATION_PARCEL.dgn

Exhibit D

Mitigation Plan



**HABITAT MITIGATION AND MONITORING PLAN
FOR IMPACTS TO AREAS WITHIN THE JURISDICTION**

OF

**THE UNITED STATES ARMY CORPS OF ENGINEERS
PURSUANT TO SECTION 404 OF THE CLEAN WATER ACT AND CALIFORNIA
DEPARTMENT OF FISH AND WILDLIFE PURSUANT OF CODE 1602 OF THE FISH
AND GAME CODE**

FOR

**RE-ESTABLISHMENT OF 0.70 ACRE OF VERNAL POOLS AND 5.1 ACRE OF
ASSOCIATED WATERSHED**

**REHABILITATION OF 0.02 ACRE OF VERNAL POOLS AND 0.35 ACRE OF
ASSOCIATED WATERSHED**

MITIGATION FOR IMPACTS TO SPECIAL-STATUS PLANT SPECIES

**ASSOCIATED WITH THE
INTERSTATE 215 WIDENING
FROM SCOTT ROAD TO NUEVO ROAD**

March 2012 [Revised April 2013]

Prepared for:

**Riverside County Transportation Commission
4080 Lemon Street, 3rd Floor
P.O. Box 12008
Riverside, California 92502-2208
Contact: Lisa DaSilva**

Prepared by:

**Glenn Lukos Associates
29 Orchard
Lake Forest, California 92630
Contact: Tony Bomkamp**



Exhibit E

Title Report



Exhibit E
of Conservation Easement



Lawyers Title Company
4100 Newport Place Drive
Suite 120
Newport Beach, CA 92660
Phone: (949) 724-3170

January 10, 2012

Riverside County Transportation Commission
P.O. Box 12008
Riverside, California 92502-2208
Attn: Min SaySay, Program Manager

YOUR REF: **426-020-007**
OUR NO.: **12690883**
Property: **Portion Partion of Rancho Jacinto Nuevo, Murrieta, CA**

Dear Customer:

On behalf of **Lawyers Title Company**, please find your CLTA Standard Owners Policy of Title Insurance.

NOTE: Your policy is a computer generated product. Although lacking color and "live" signatures, it is the original of your policy.

Thank you for selecting **Lawyers Title Company** for your transactional management needs.

Enclosure



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POLICY OF TITLE INSURANCE
Issued by
Commonwealth Land Title Insurance Company
SCHEDULE A

Policy/File No.: **12690883**

Amount of Insurance: **\$207,000.00**

Premium: **\$986.00**

Endorsement Fees: \$0.00

Date of Policy: **December 20, 2011 at 8:00 A.M.**

1. Name of Insured:

Riverside County Transportation Commission, a county transportation commission existing under the authority of Section 130050 et Southeast Quarter. Of the California Public Utilities Code

2. The estate or interest in the land described herein and which is covered by this policy is:

A FEE

3. The estate or interest referred to herein is at the Date of Policy vested in:

Riverside County Transportation Commission, a county transportation commission existing under the authority of Section 130050 et Southeast Quarter. Of the California Public Utilities Code

4. The land referred to in this policy is situated in the County of Riverside, State of California, and is more particularly described in Exhibit "A" attached hereto and made a part hereof.



SCHEDULE B – PART I
Continued

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interest or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, which are not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

END OF SCHEDULE B - PART I



**SCHEDULE B
PART II**

1. Water rights, claims or title to water, whether or not shown by the public records.
2. An easement for the purpose shown below and rights incidental thereto as set forth in a document
Granted to: Lakeview Water Company
Purpose: pipe lines
Recorded: April 1, 1901 in Book 119, Page(s) 284, of Deeds

The exact location and/or extent of said easement is not disclosed in the public records.
3. An easement for the purpose shown below and rights incidental thereto as set forth in a document
Granted to: Nuevo Water Company
Purpose: pipe lines
Recorded: July 14, 1917 in Book 177, Page 303, of Deeds

The exact location and/or extent of said easement is not disclosed in the public records.
4. An easement for the purpose shown below and rights incidental thereto as set forth in a document
Granted to: County of Riverside
Purpose: drainage, river channel and bank protection works
Recorded: December 27, 1944, in Book 653, Page 475 of Official Records
Affects: said land more particularly described therein.
5. An easement for the purpose shown below and rights incidental thereto as set forth in a document
Granted to: Southern Counties Gas Company of California, a California Corporation
Purpose: pipe lines
Recorded: December 23, 1948 in Book 1038, Page 191 of Official Records
Affects: said land more particularly described therein.
6. The fact that the ownership of said land does not include any rights of ingress or egress to or from the freeway adjacent to said land, said rights having been relinquished by deed to the State of California,
Recorded: November 24, 1958 in Book 2369, Page 163 and in Book 2369, Page 494, both of Official Records
7. Intentionally deleted.
8. Any boundary discrepancies, rights or claims which may exist or arise as disclosed by a Record of Survey

Recorded in Book 56, Page 44 through 49 of Records of Survey
9. Intentionally deleted.



SCHEDULE B – PART II
Continued

10. An easement for the purpose shown below and rights incidental thereto as set forth in a document
- | | |
|-------------|---|
| Granted to: | Southern California Gas Company, a Corporation |
| Purpose: | pipe lines |
| Recorded: | January 19, 1995 as Instrument No. 016781 of Official Records |
| Affects: | said land more particularly described therein. |

11. Any boundary discrepancies, rights or claims which may exist or arise as disclosed by a Record of Survey

Recorded in Book 97, Page 46 to 55, of Record of Surveys

The matters contained in a document entitled "Certificate of Correction" recorded February 26, 1995 as Instrument No. 060577 of Official Records.

Reference is made to said document for full particulars.

END OF SCHEDULE B - PART II

Endorsements: NONE



Exhibit F

- ▼ Map of the major, distinct natural features on the Conservation Property



EXHIBIT F

Legend

- Fencing
- Existing Berm
- 3-Pipe Culvert
- Proposed Sign Location
- Historical Corps Wetlands
- Parcel 426020007



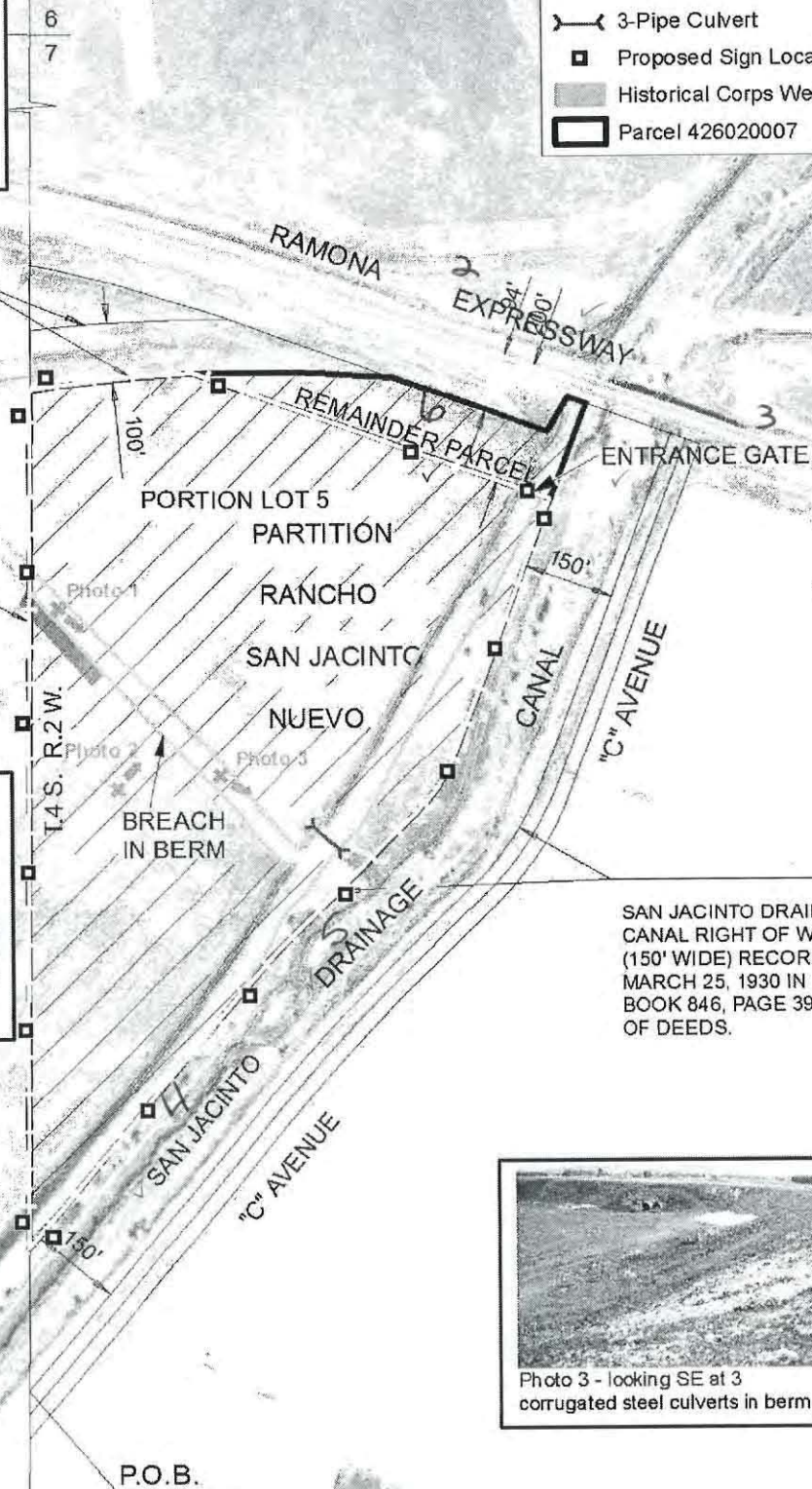
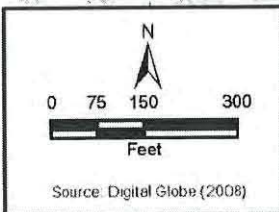
Photo 1 - looking SE on man-made berm

100' WIDE STRIP OF LAND CONVEYED TO PERRIS AND LAKEVIEW RAILWAY COMPANY BY DEED RECORDED NOVEMBER 19, 1898 IN BOOK 76, PAGE 91 OF DEEDS.

WEST LINE OF SECTION 7, T.4S. R.2W., SBM.



Photo 2 - looking NE at breach in man-made berm



SAN JACINTO DRAINAGE CANAL RIGHT OF WAY (150' WIDE) RECORDED MARCH 25, 1930 IN BOOK 846, PAGE 399, OF DEEDS.

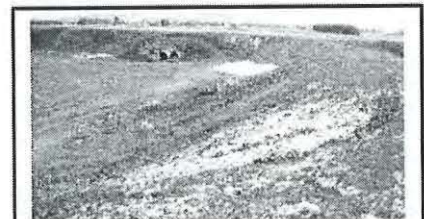


Photo 3 - looking SE at 3 corrugated steel culverts in berm

Interstate 215 Widening Project from Scott Road to Nuevo Road Mitigation Parcel



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LARRY W. WARD
COUNTY OF RIVERSIDE
ASSESSOR-COUNTY CLERK-RECORDER

Recorder
P.O. Box 751
Riverside, CA 92502-0751
(951) 486-7000

www.riversideacr.com

CERTIFICATION

Pursuant to the provisions of Government Code 27361.7, I certify under the penalty of perjury that the following is a true copy of illegible wording found in the attached document:

(Print or type the page number(s) and wording below):

1 November 19, 1898 in Book 76, Page 91 of Deeds
2. Expressway
3 Entrance Gate
4 San Jacinto
5 Drainage
6 Remainder Parcel

Date:

5-23-13

Signature:

Tara S Byerly

Print Name:

Tara S. Byerly

Exhibit G

Long-term Management Plan



LONG TERM MANAGEMENT PLAN
FOR
THE 0.70 ACRE VERNAL POOLS AND 5.1 ACRE OF ASSOCIATED WATERSHED
MITIGATION SITE AND OCCUPIED SAN JACINTO VALLEY CROWNSCALE
HABITAT AND OCCUPIED SMOOTH TARPLANT HABITAT WITHIN THE
MITIGATION SITE
FOR IMPACTS TO AREAS WITHIN THE JURISDICTION
OF
THE UNITED STATES ARMY CORPS OF ENGINEERS
PURSUANT TO SECTION 404 OF THE CLEAN WATER ACT
(File No. 2010-00944-SCH),
SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD
PURSUANT OF SECTION 401 OF THE CLEAN WATER ACT
(Project No. 332012-04),
CALIFORNIA DEPARTMENT OF WILDLIFE
PERSUIT TO DEPARTMENT OF FISH AND GAME CODE
(SAA Notification No. 1600-2012-0024-R6),
AND THE UNITED STATES FISH AND WILDLIFE SERVICE
PURSUANT TO BIOLOGICAL OPINION PURSUANT TO
SECTION 7 OF THE ENDANGERED SPECIES ACT
ASSOCIATED WITH THE INTERSTATE 215 WIDENING
FROM SCOTT ROAD TO NUEVO ROAD

May 2013

Prepared for:
Riverside County Transportation Commission
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P.O. Box 12008
Riverside, California 92502-2208
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Prepared by:
Glenn Lukos Associates
29 Orchard
Lake Forest, California 92630
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